CONSTRUCTION NEWS

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CONTENTS.

CONSTRUCTION NEWS:
Railways 49
Electric Railways 50
Light and Power Plants.................... 50
Bridges 51
Buildings 51
Water Supply and Irrigation.............. 53
Sewerage 54
Garbage Disposal 55
Streets and Roads.......................... 55
Manufacturing Plants...................... 56
Miscellaneous Contracts 57
U. S. Possessions and Cuba............... 58
Foreign Contracts 58
Contract Prices 58
Plans and Specifications on File..... 63
List of Contracts Pending............... 63
CURRENT PRICES OF ENGINEERING MATERIAL 59-62
INDUSTRIAL NOTES 62
TRADE PUBLICATIONS 62
PROPOSALS 64

RAILWAYS.

(*Denotes *that this work is advertised in Engineering News.*)

ARIZONA.—We are officially advised that surveys, construction estimates and reports have been made for the road from Holbrook to Bear Springs. Franchises have been secured and all the preliminary work is finished to the financing, which is now under way. It will be a close corporation and will issue bonds to the amount of $1,500,000. No one has as yet been authorized to make arrangements or contracts. W. H. Clark, Holbrook, Ariz., is interested. Noted Jan. 12.

ATLANTIC COAST LINE R. R.—H. M. ALLPORT & SON, Richmond, Va., is the contracting company for the work on the 20 miles of double tracking between Mount Holly and Bonneau, S. C. The work will include about 6,000 cu. yds. of concrete for culverts. E. B. Pleasants, Willmington, N. C., is Ch. Engr. Noted Jan. 26.

BALTIMORE & OHIO R. R.—At the office of Samuel D. Brady, Ch. Engr. of the Buckhannon & Northern R. R., 50 bids were received for the construction work of a line from Riversville, W. Va., near Fairmont, to Pt. Marion, Pa. Noted Dec. 22, 1910.

BALTIMORE & OHIO R. R.—This company is making arrangements to install 74 miles of automatic block signals and 13 interlocking stations, eleven of which are included in the third-track work in West Virginia. The signal installation will be confined to the Connellsville and Pittsburg double-track divisions. F. P. Patenall, Baltimore, Md., is Sig. Engr.

BLACK LICK & YELLOW CREEK R. R.—A. L. ANDERSON & BRO., Altoona, Pa., contractors, have been awarded the contract for the construction of 20 miles of railroad in Indiana County by the Black Lick & Yellow Creek R. R. Co. The new line will be a feeder to the New York Central and will extend through rich coal fields, connecting several mining operations. The contract price is $250,000 and the work is to be completed this summer. L. H. Davis, Vintondale, Pa., is Supt.

CALIFORNIA.—Advices from the press state that R. E. Jack, Union League Club, San Francisco, has abandoned, for the present, the proposed railroad connecting Fresno and San Luis Obispo. He is now devoting his attention to the bonding of Kern, Kings, Tulare and Fresno Counties for about $5,000,000 in view of a road being promoted by the San Luis Obispo Chamber of Commerce and local business men from Bakersfield and Fresno to the sea. The route will lie between Port Harford and Fresno by way of Arroyo Grande, north through Morro Pass, across Salinas River to San Miguel, through Polonia Pass to Hanford and on to Fresno; thence southward to Bakersfield, by way of the Midway and Maricopa oilfields to San Luis Obispo through Bitterwater Pass and meeting the main line at Cholane.

CALIFORNIA.—Surveyors are at work on a new line between Pedley, Riverside County, and San Bernardino, Cal., for the purpose of doing away with delays occasioned by using the Southern Pacific and Santa Fe tracks between Riverside and San Bernardino. It is proposed to build a track leaving the main line west of the Santa Ana River bridge near Pedley, cutting diagonally across the county to Crestmore, then to Bloomington, then direct east to San Bernardino.

CANADIAN PACIFIC RY.—The construction programme in Western Canada, for 1911, as announced by Vice-Pres. William Whyte, upon his return to Winnipeg from Montreal, includes: Construction of 380 miles of new branch lines; 100 miles of double track; 40 miles of additions to present sidings to make room for longer trains; Winnipeg shops to be enlarged one-third of present capacity; 85-lb. steel rails to be laid on the old Manitoba and Northwestern line, which is to be made a part of the new main line to Edmonton; rock-crushing plants to be established in British Columbia and rock ballasting of hundreds of miles of track; proposed extension of Granville St., at Vancouver, through existing depot in that city, and the construction of a jetty; also extensive improvements on False Creek and Burrard Inlet; establishment of gravity system for distribution of cars at the Fort William yard; establishment of new railway yards at Medicine Hat, Moose Jaw and Regina. New lines: Moose Jaw southwest, 35 miles; Estevan to Forward, 35 miles; Weyburn extension, 20 miles; Swift Current southeast, 45 miles; Swift Current northeast, 35 miles; Wilkie, south on the west side Tramping Lake, 25 miles; Wilkie, south on east side Tramping Lake, 25 miles; Wilkie, northwest through Cut Knife, 32 miles; Lacombe branch eastward, 60 miles; Golden, south (Kootenay Central), 20 miles; Carmangnay to Aldersyde (southern Alberta), 27 miles.

CHICAGO, ROCK ISLAND & PACIFIC R. R.—This company, it is reported, will build an extension in Iowa from Des Moines to Allerton, Wayne County, where, it is believed, a connection with the Kansas City line will be made. Surveys have been made. J. B. Berry, La Salle St. Station, Chicago, Ill., is Ch. Engr.

COLORADO.—Surveyors are engaged in cross-sectioning and setting the grade stakes near Hudson, Colo., for the new Hudson-Greeley R. R. MACARTHUR BROS., 11 Pine St., New York, N. Y., have the contract.

GRAND TRUNK RY. SYSTEM.—Vice-Pres. W. Wainwright, Montreal, Que., announces that this company is considering a plan to build a road from Ottawa to Toronto. This company controls the Rideau Valley & Brockville R. R. D. H. MacLean, Vice-Pres. of that company, states, it is reported, that a line between Ottawa and Brockville is contemplated.

HARRIMAN LINES.—Robert S. Lovett, Pres. and Chn. of the executive committees of the Harriman lines, issued the following statement Jan. 31, regarding extension work along the Union Pacific and the Southern Pacific. "The executive committees of the Union Pacific and Southern Pacific Jan. 31, voted to complete the double-tracking of the line from the Missouri River to San Francisco, and to double-track the Oregon Short Line from the junction with the Union Pacific main line at Granger, Wyo., to Huntington, Ore., and the line along the Columbia River in Oregon to Portland, being a total of 1,673 miles. The cost of this work will aggregate upward of $75,000,000 and is to be distributed over a period of five years."

KANSAS CITY SOUTHERN RY.—With the announcement that F. M Welch, former immigrant agent for the Gould lines, is to be President of a new railway to be built from Donaldsonville, La., to Leesville, La., a distance of 150 miles, comes the report that the new line is to be built by either the Frisco system or the Kansas City Southern. The new road will give the Middle West another deep water outlet. A. F. Rust, Kansas City, Mo., is Resident Engr.

KENTUCKY & TENNESSEE RY.—It is reported that this company is considering a plan to build a 12-mile extension into the lands owned by the Stearns Coal & Lumber Co., in Kentucky. R. J. Stern is Secy. and Treas. of the railroad company.

LEXINGTON & EASTERN RY.—Work is about to begin on the construction of a branch of the Lexington & Eastern Ry., the main line of which runs between Jackson, Ky., and Lexington Ky. The branch line is to extend 16 miles out of Jackson to a point near Stonega, Va. The contract for the construction has been awarded to the CALLAHAN CONSTRUCTION CO., Knoxville, Tenn. The line will be completed by the end of the year. John Marston, Jr., Lexington, Ky., is Ch. Engr.

MANITOULIN & NORTH SHORE RY.—D. B. CAMPBELL, of Strathroy, B. C., has been awarded the contract for the construction of 23 miles of line, commencing about 15 miles from Sudbury, B. C., and running to a point near Little Current, on Manitoulin Island.

MEXICO.—The authoritative announcement is made by Joseph Brailsford, London, Engr., Chairman of the Executive Board of Directors of the English synidcate, known as Hudson's Consolidated, Ltd., that it has obtained a concession from the Mexican Government for the construction of a transcontinental railroad through southern Mexico. The Government has granted a subvention amounting to approximately $5,000,000 gold in aid of the enterprise. A party of engineers has arrived from England to make the survey for the proposed road of about 470 miles. A subsidiary concern will carry out the preliminary work. The Hudson's Consolidated, Ltd., owns 17 rich mines in Mexico and the syndicate is said to be composed of a group of wealthy Englishmen who are financially able to carry out the construction of the proposed railroad.

MINNEAPOLIS & ST. LOUIS R. R.—The persistent rumor in railroad circles regarding a road connecting Ruthven and Terrill, Iowa, is now affirmed, by a press report, stating that work will begin in the Spring. When this section is finished it is thought the work will continue through to Otho.

MISSOURI.—F. S. McCarty, St. Louis, Mo., Pres. and Gen. Mgr. of the St. Louis & Missouri Southern Ry. Co., announces, according to press reports, that the new road between St. Louis and Memphis is progressing rapidly. Most of the grading has been completed to within about 125 miles of St. Louis. The headquarters of the company is at New Madrid, Mo.

MONONGAHELA R. R.—Bids have been opened by this company for the construction of about 30 miles of track to complete the connection from Martin, Lafayette County, to Reevesville, W. Va. It is said that it is planned to establish a connection at Reevesville with the Baltimore & Ohio through line to Cincinnati. It is hoped to have the new connection in operation some time in the Spring or Summer of 1912.

PENNSYLVANIA.—A new route has been mapped out and R. C. Allen, Uniontown, Chief of Party, it is reported, is making surveys in the Portersville district for the new route which will abolish the tunnel, estimated cost $500,000, included in the previous plans. The road, according to the new plan, will be from Ellwood City to Franklin by way of Portersville and Grove City. A connection will be made with the Baltimore & Ohio and with the Pittsburg & Lake Erie at Ellwood City, and with the Lake Shore & Michigan Southern at Franklin. Representatives of the Great Lakes Coal & Gas Co. are interested in the project.

SOUTHERN PACIFIC CO.—This company, it is reported, will build a line between Benicia and Sacramento, Cal., in the Spring. Wm. Hodd, San Francisco, Cal., is Ch. Engr.

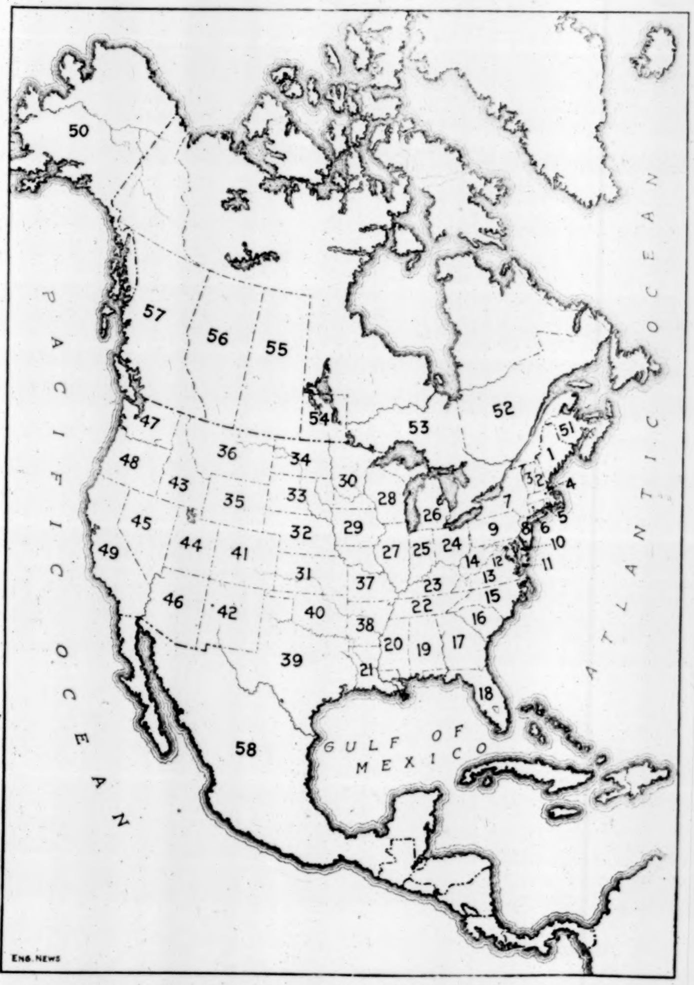
TEXAS.—The CENTRAL CONSTRUCTION CO., Mobeetie, Tex., has been awarded the contract for the construction of a railroad from Vernon, Tex., touching Olustee, Okla., and Mangum, Tex., terminating at Miami, Tex. W. E. McClintock, Mobeetie, is Ch. Engr. It is thought work will begin by April.

TEXAS.—The grade of nearly 100 miles of the Altus, Lubbock & Roswell R. R., from Wellington to Silverton, Tex., is finished and the division will soon be ready for opening, it is announced. Arrangements are being made to construct an extension of the Altus, Lubbock & Roswell R. R. to El Paso by way of Roswell, N. Mex. Surveys for the lower division of the proposed road are now in progress. It is stated by E. Kennedy, a promoter of the road, that bonuses of $600,000 have been subscribed in aid of the project and that land has been donated. This road will place El Paso within 593 miles of Oklahoma City, which is 247 miles shorter than the present railroad route.

TEXAS.—Press reports state, that it has been announced by the Rock Island, Tucumcari, Farwell & Gulf R. R., that the 250-mile line between Midland, Tex., and Tucumcari, N. M., is now being promoted. Engineers are locating the route from Midland northwest to a connection with the line now under construction. The work of grading the line out of Midland will begin soon. This road will traverse a portion of western Texas and northwestern New Mexico, now without a railroad. It will connect with the Texas & Pacific R. R. at Midland. It is planned to ultimately extend the line southeast from Midland to San Antonio and thence to the port of Aransas Pass on the gulf.

TEXAS.—We are officially advised that the Chicago, Weatherford & Brazos Valley R. R. Co., of which L. M. Kirkes, Weatherford, Tex., is Pres., has made surveys and secured the right-of-way for a line connecting Weatherford, Peaster, Poolville, Boonville, Bakora, Bridgeport, Era, Gainesville, of which 60% of the grading is completed from Weatherford to Bridgeport. Contracts have been let for ties, bridge timber and building material, to be delivered about Feb. 20, for the first ten miles of road. The contracts for corruguated pipe, bolts, spikes and track material will be awarded shortly. MITCHELL, PIGG CONSTRUCTION CO. are the contractors and promoters. F. B. Truax, Weatherford, Tex., is Ch. Engr., of the railroad company.

TOLEDO & OHIO CENTRAL RY.—Surveyors are busy seeking a new track location betwen Hebron and Alexander, Ohio, which will eliminate heavy grades and curves. This will necessitate the laying of about 15 miles of new line. J. A. Stocker, Columbus, Ohio, is Ch. Engr.



GEOGRAPHICAL ARRANGEMENT OF CONSTRUCTION NEWS ITEMS.

The items regarding new work in the Construction News Department are arranged geographically. For the benefit of new subscribers who do not understand the system, the accompanying map is shown. In each department the items are grouped according to the States, in the United States and political divisions in Canada, in which the work is contemplated, and are arranged in sequence of numbers, as shown on the map. The order is as follows:

Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Tennessee, Kentucky, Ohio, Indiana, Michigan, Illinois, Wisconsin, Iowa, Minnesota, Kansas, Nebraska, South Dakota, North Dakota, Wyoming, Montana, Missouri, Arkansas, Texas, Oklahoma, Colorado, New Mexico, Idaho, Utah, Nevada, Arizona, Washington, Oregon, California, Alaska.

In Canada items are grouped in a similar order, beginning with the Maritime Provinces, when Quebec, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia.

All items regarding work in Mexico are grouped under the one title—Mexico.

All classifications in Construction News use this order, except the railways. For railways, the items are arranged alphabetically, according to the name of the operating company. New incorporations and companies not in operation are indexed under the State in which the principal amount of track will be built, and this State is indexed alphabetically with the rest of the items under the heading Railways.

ELECTRIC RAILWAYS.

NEW YORK, N. Y.—The Interborough Rapid Transit Co. has purchased about thirty-one acres of land on the line of one of the proposed Bronx extensions. The property lies east of 240th St., a short distance south of the Mt. Vernon line and cost, it is said, $310,000.

NORTH SYRACUSE, N. Y.—Surveys are being made for an extension by the Syracuse & South Bay Electric R. R. Co. Starting from a point north of this place passing through Brewerton and Central Square and terminating at Watertown. T. H. Mather, Syracuse, N. Y., is Ch. Engr.

SCHENECTADY, N. Y.—The Schenectady Ry. Co. made application on Sept. 26, 1910 for a franchise to build a double track extension in Smith St., with single track extensions in Veeder Ave., and Lafayette St. Later another application was made for a single track extension in Barrett St., also a double track extension in South Ave., North Jay St., and Nott St. No action has been taken by the common council. The railroad is now pushing the matter in order that this work may be completed this year. F. E. Peck, 420 State St., Schenectady, N. Y., is Gen. Mgr.

HACKETTSTOWN, N. J.—From Hackettstown to Washington, N. J., a line will be started in a short time by the recently formed Northampton, Eastern & Washington Traction Co., which recently mortgaged its lines for $500,000 to cover the proposed operations.

LANCASTER, PA.—Arrangements have been made for the consolidation of the Lancaster & York Furnace St. Ry., and the Lancaster & Southern St. Ry. A number of extensions will be built. George B. Atlee of George B. Atlee & Co., a Philadelphia firm is interested.

LEISENRING, PA.—We are officially advised that the West Penn Rys. Co., now building a line from Leisenring through Juniata, Elm Grove, Bitner and Phillips, will ultimately extend to Uniontown. A contract for three miles of grading will be let within a few days. J. L. Fritsch, Connellsville, Pa., is Ch. Engr.

CHARLOTTE, N. C.—Rumors are confirmed, it is said, that the Duke interests contemplate a network of interurban trolley lines connecting Charlotte and Piedmont and other cities of South Carolina. The company will utilize the water power in the streams of this section. The road is to be built by a syndicate capitalized at $7,000,000, composed of J. B. Duke, B. N. Duke and W. S. Lee.

WILMINGTON, N. C.—About two miles of track will be laid, during the coming year, it is said, for the Tidewater Power Co., of this city.

DE LEON SPRINGS, FLA.—A company has been organized by R. A. Hammond of New York, N. Y., to build a line from De Leon Springs to De Land.

BIRMINGHAM, ALA.—Press reports are to the effect that the Birmingham, Ensley and Bessemer R. R. Co., have taken over the franchise of the Tidewater Development Co., and a contract has been awarded to MAC ARTHUR BROS., 11 Pine St., New York, N. Y., for the construction of a street railway from East Lake to Bessemer.

MERIDIAN, MISS.—The Meridian Light & Ry. Co., of this place, it is reported, will build during this year about two miles of new track.

CRYSTAL VALLEY, MICH.—A railway connecting Pentwater and this place is contemplated. I. C. Harwood of Crystal Valley is interested, it is said.

EVELETH, MINN.—Surveyors from the Duluth Engineering Co., are making surveys on the proposed trolley line, laying out routes from this place in the direction of Gilbert. Another party is at work between Virginia and Mountain Iron.

ST. LOUIS, MO.—A 50-year franchise has been applied for by T. G. Portis, Secy. of the Parker-Russell Mining & Mfg. Co.; Charles F. Vogel, a real estate man, and E. R. Kinsey, Civil Engr., for a railway. The route will be from Grand Ave. west on Wyoming to Oak Hill Ave., south to Parker Ave., west to Morgan Ford Road, south to Miami St., west to King's Highway, south to Pernod St., west to Wabash Ave., south to Bancroft Ave. and west to the city limits.

LITTLE ROCK, ARK.—The Arkansas Interurban Ry. Co., is planning to build a line from Little Rock to Hot Springs, about 70 miles. H. H. Edwards, 764 Oakwood Boulevard, Chicago, is interested.

PALESTINE, TEX.—V. S. Mainly, Secy. and Treas. of the Corpus Christi Street & Interurban Ry. Co., of Corpus Christi, contemplates constructing an electric street railway here. The proposed system will also be extended into suburban towns.

WACO, TEX.—J. Sandford Smith and associates are preparing to construct interurban electric railway between Waco and Mexia, Tex. A committee has been appointed to aid in the carrying out of the projected road. J. Desenberg of Mexia, is also interested.

TULSA, OKLA.—Charles Page, has asked the city for a franchise for an interurban railway which will connect Tulsa with a large amusement park to be built by him. The railway and park will cost $250,000, according to press reports and will be completed by spring.

PHOENIX, ARIZ.—An aplication has been made by Dr. H. H. Stone, Charles Goldman and S. Michelson for a franchise to build a railway connecting this city with Mesa and Tempe.

BAKERSFIELD, CAL.—The entire Bakersfield city street-car system will be rebuilt at a cost of $400,000. This announcement comes through A. G. Wishon, Gen. Mgr., of the San Joaquin Light & Power corporation owners of these lines, having taken them in July, 1910, from the Power Transit & Light Co. This latter company, it is also stated, is considering a plan to extend its Chester Ave. line to the Kern River oil fields and Waits, about eight miles.

FRESNO, CAL.—The Fresno, Coalinga & Tidewater Co., promoting an electric railroad from Fresno to Coalinga and from there to Tidewater at Monterey. The authorized capital stock is $100,000. The organizing directors are as follows: Charles J. Shaw, Hollister; A. G. Metz, Monterey; W. J. Kilby and Frank Chenew, Coalinga; J. W. Briscoe, Bakersfield; G. W. Cartwright; G. P. Cummings, Roy Hall, T. C. White, Dr. W. T. Burks, Montgomery Thomas, H. H. Alexander and C. S. Pierce, Fresno.

LOS ANGELES, CAL.—It is reported that the Brooklyn Heights R. R. Co., will extend its line into the section lying north of Brooklyn Ave. J. W. Owens is Chn. of the Brooklyn Evergreen Improvement Association.

LOS ANGELES, CAL.—Plans are being prepared by the Pacific Electric Ry. Co. for the construction of a line that will connect its Redlands system and its narrow gage line now in operation between Los Angeles and San Pedro, with its Long Beach line.

LOS ANGELES, CAL.—Press reports state that the Los Angeles & Redmond Ry. Co., has applied for a franchise to build an extension into the city. G. J. Kuhrts, this city is Ch. Engr.

OAKLAND, CAL.—A franchise, it has been reported, has been granted to the Oakland Traction Co., giving the company the privilege to build its car line over 19th St.

OAKLAND, CAL.—R. H. Miller, Albert J. Krutmeyer and John R. Selby, all of San Francisco are the incorporators of the Oakland & Bay Shore R. R. Co., a new company capitalized at $500,000. It is the intension of this company to build a line in Oakland on Shafter Ave. and Webster St.

SACRAMENTO, CAL.—The plans of the United Properties Co. to extend the Oakland Traction and Key Route systems to Sacramento and San Jose, have been announced. Incorporation papers of the Sacramento Short Line and San Jose Short Line were filed. According to the plans the Key Route system known as the San Francisco, San Jose & Oakland Ry., will be extended 98 miles into Sacramento, there to connect with the Northern Electric Co. The San Jose extension will be a continuation of the Oakland Traction Co whose lines at present terminate in Hayward. A franchise and rights of way have already been secured for the extension into San Jose. The Sacramento Short Line is capitalized at $10,000,000 and the directors are attaches of the office of Gavin McNab, one of the incorporators of the United Properties Co.

LONDON, ONT.—The Board of Directors, Mayor T. H. A. Beattie, Chn., of the London & Port Stanley Ry., on Dec. 16, decided to instruct the engineering department to prepare estimates of the probable cost of electrifying the line from London to Port Stanley. A. H. Van Cleave is City Engr.

VANCOUVER, B. C.—The British Columbia Electric Ry., will erect extensive freight terminals on the north shore of False Creek. R. H. Sperling, Gen. Mgr., Vancouver, B. C.

WEST INDIES (Barbados).—See item under Foreign Contracts.

LIGHT AND POWER PLANTS.

(**Denotes that this work is advertised in Engineering News.*)

AUGUSTA, ME.—The Automatic Lighting Co., has been formed with a capital of $600,000. Ernest L. McLean is Pres. of Co.

SPRINGFIELD, MASS.—It is the intention of the Springfield Gaslight Co. to expend $250,000 in the installation of new apparatus chiefly of German type.

BUFFALO, N. Y.—The purchase of three steam turbo-electric generators of 5,000-HP. capacity, each, for the new water-works pumping station, from the Westinghouse Machine Co. has been approved by the Commission on Water of City Council and Comrs. of Public Wks. The new generators to be used to furnish current for lighting civic buildings and streets in addition to pumping services.

COSCOB, CONN.—The New York, New Haven & Hartford R. R. Co., are planning an addition to the power station here. The new building will be 111 × 244 ft., one story in height, with a Spanish tile roof. The additional equipment is said to have been already contracted for. Plans are by the company's engineers. Edward Gagel, New Haven, is Ch. Engr.

EASTHAMPTON (L. I.), N. Y.—A bond issue to the amount of $13,500 has been authorized by the Public Service Commission, Second District, for improvements to the Easthampton Electric Light Co.'s plant and distributing system.

SODUS, N. Y.—The Sodus Gas & Electric Co. is considering the extension of its transmission lines east to Wolcott, N. Y., to supply electric service for lamps and motors in Alton, Wallington, North Rose, Butler, Rose, Red Creek, Wolcott and the surrounding country. The Sodus Co. obtains energy for operating its system from the Rochester Ry. & Light Co., Rochester.

OVERBROOK, N. J.—Bids will be received by the Building Com. of the Essex County Board of Freeholders at Essex County Court House, Newark, until Feb. 3, for installing an ash conveying and automatic stoking system, and all work in connection, in the power house of the Essex County Hospital for the insane, Overbrook. Hurd & Sutton Union Bldg., Newark, are the Archs.

SOUTH AMBOY, N. J.—The appointment of a committee has been recommended by Michael A. Welsh, Mayor, to make investigations in regard to establishment of a municipal electric light plant in South Amboy, N. J.

PITTSBURG, PA.—A large plant will be erected by the Pittsburg Steel Co. on the Ohio River. About $7,500,000 will be expended.

WASHINGTON, D. C.—Bids will be received by Superv. Arch., Treasury Dept., Wash., D. C., until 3 p. m., Feb. 23, for supplying and installing lighting fixtures for the Philadelphia immigrant station (Gloucester, N. J.), and the U. S. buildings at Belleville, Ill.; Connersville, Ind.; Emporia, Kan.; Estherville, Iowa; Independence, Mo.; Woonsocket, R. I.; Athens, Ga.; Quincy, Ill.; and Newbern, N. C. Drawings and specifications may be obtained at this office, at the discretion of the superv. arch.

FREDERICKSBURG, VA.—C. P. Burgwyn, Pres. Rappahannock Power and Light Co., Richmond, Va., applied to city council for a electric light franchise. Will probably start to operate new electric plant this year.

HICKORY, N. C.—CONNELL & CONNELL, 90 West St., New York, N. Y., have been awarded the contract for the engineering and construction on the proposed plant. Louis B. Abel is Resident Engr., Hickory.

TROY, ALA.—Plans are being considered for improving the electric light and water plant, which will include the installation of one electrically drawn pump, having a capacity of 2,500 gallons per hour, a 150-HP. boiler, one 250-KW., 3-phase, 60-cycle generator, direct-connected to steam unit. A. B. Campbell is Supt.

TUPELO, MISS.—This city will soon issue bonds to the amount of $15,000 for improvements to the municipal electric light plant. It is proposed to change the system from direct to alternating current and to install larger engines. W. H. St. John is Supt.

TELLICO PLAINS, TENN.—The Tellico Power Co. has been recently granted franchises by Comrs. of Blount and Monroe Counties to extend its power line from Tellico Plains into Knoxville, having a capacity of 6,000 HP., and will be used in operating mills and factories in this city. The power will be generated by means of a waterfall on Tellico River.

DAYTON, KY.—A 25-year franchise has been granted the Union Light, Heat & Power Co., of Covington, in Dayton.

LOUISVILLE, KY.—The contract has been awarded to the AMERICAN MACHINE CO., Louisville, Ky., for installing an electric light in the new City Hall. The estimated cost is about $5,000.

CLEVELAND, OHIO.—Bids will be received until Mar. 8 by the Cuyahoga County Building Commission, 425-427 Garfield Bldg., for the electric light fixtures for the new court house. Plans and specifications may be seen at 149 Court House. John J. Boyle is Secy.

DAYTON, OHIO.—The contract has been awarded to A. BENTLEY & SONS for the erection of an addition to the Beaver Power building at Dayton, Ohio. The Beaver building is a central power plant, used by a number of small manufacturers in Dayton. It is of concrete construction as will be the addition which is demanded because of requests for more space by light manufacturers.

BEDFORD, IND.—See item under Water-Supply—Irrigation.

FORT WAYNE, IND.—Henry B. Monning, John. F. McCarthy, of Ft. Wayne, Ind., and others, are preparing to ask for bids for the construction of a central heating plant in the business districts.

LAFAYETTE, IND.—The Sterling Electric Co., Lafayette, Ind., has been incorporated to build or establish a plant to manufacture electrical apliances and devices of all kinds, machines, tools, apparatus, etc. Samuel T. Murdock, Thomas Duncan and A. B. Wallace are directors.

VINCENNES, IND.—The Vincennes Electric Co., Vincennes, Ind., has incorporated to establish and equip a plant for the generation of current for heating, lighting and power purposes. Albert J. Heintz, Wm. T. Barns and Charles W. Sherman, directors.

DURAND, MICH.—A bond issue to the amount of $12,000 has been authorized by the city for extensions to the municipal electric light plant and water-works system; 200-KVA. generator and one 75-KVA. generator and a 275-HP. engine and alternating-current motor of from 50 to 20 HP. to operate pumps. H. F. Rosenkrans is Mgr.

BELVIDERE, ILL.—The Council has granted the Public Service Operating Co., Belvidere, a 10-year franchise for street lighting.

CARLINVILLE, ILL.—Bids will be received by the Bd. of Mgrs. until Feb. 7, at the office of W. C. Seehausen, County Clk., for installing a lighting plant in the Macoupin County Almshouse.

MT. OLIVE, ILL.—Additions and improvements are being contemplated for the municipal electric plant, including the installation of an additional water-tube boiler. O. A. Voepel is Mgr.

PALESTINE, ILL.—It is proposed to install new generator at the municipal light plant in the spring. H. T. Loughery is Chn. Light Com.

PRAIRIE DU SAC, WIS.—Surveys are being made by the Wisconsin River Power Co. for a dam across the Wisconsin River. The dam will be 1,500 ft. long, with a 1,000-ft. spillway. About 26,000 HP. will be developed. R. G. Walter, Prairie Du Sac, is in charge.

RIO, WIS.—A lighting plant will be constructed by the Columbia Electric Light & Power Co., Pardeeville, Wis. The installation will include a 150-HP. boiler, one 125-HP. engine, one 100-KW., 3-phase, 60-cycle AC. generator. Myron L. Aldrich, Pardeeville, Wis., is Supt.

DAVENPORT, IOWA.—The contract has been awarded to the WESTINGHOUSE ELECTRIC MANUFACTURING CO., by Samuel S. Davis and Thomas B. Davis, for one exciter, one motor ge[illegible] set six verticle generators and a [illegible] switchboard to be installed at th[illegible] water power development plant.

INDEPENDENCE, IOWA.—[illegible] are being contemplated for enlarging [illegible] municipal electric light plant, which w[illegible] an addition to the power house and [illegible] installation of a 250-KW. generator and [illegible] E. R. Stanard is Supt.

WEBSTER CITY, IOWA.—[illegible] has been secured by the city for th[illegible] of a light and power plant. Th[illegible] estimated cost is $50,000.

ANOKA, MINN.—The Grea[illegible]hern Development Co., Duluth, Minn[illegible] been authorized to build a dam a[illegible] Rapids, which will develop 35,000 HP.

SHAKOPEE, MINN.—The co[illegible] for installing a triplex pump at th[illegible] electric light plant has been awarded to J[illegible] ROBERTSON, St. Paul.

GRAND ISLAND, NEB.—Ar[illegible]nts are being made by the Grand Isla[illegible] Electric Co. to install a 350-KW. generato[illegible] engine. T. H. Fritts is Mgr.

SPENCER, NEB.—W. J. Wo[illegible] proposes to install an electric light pla[illegible] The estimated cost is about $8,000.

HENRY, S. DAK.—The Counc[illegible] granted a franchise for the installation [illegible] electric light system here to the H[illegible] Light & Power Co.

MAMMOTH SPRINGS, ARK.—[illegible] Mammoth Springs Electric Co., is co[illegible]ing the installation of a 1,000-KW. ge[illegible]tor and 28 miles of high-tension transm[illegible]on lines carrying 33,000 volts. Preparat[illegible] are being made by the company to furn[illegible] electricity for lamps and motors in fiv[illegible]ns. E. C. Bellamy is Secy. and Mgr.

FORT SAM HOUSTON, TEX.—[illegible], will be received until 11 a. m., Feb. 11 [illegible] P. W. Guiney, Constr. Q. M., U. S. A., Fort Sam Houston, for the electric service connections to seven new buildings at Fort Sam Houston.

MADISONVILLE, TEX.—C. C. Murray & Sons have been granted a franch[illegible] by the Board of County Commissioners of Madison county for an electric light and power plant here. They will organize the M[illegible]onville Light and Power Co. to carry out the project. The company also contemplates installing an ice plant at this place.

ERIE, COLO.—The city is considering plans for enlarging the municipal electric-light plant. The equipment will consist of a new boiler, a larger generator and the installation of a heating plant.

MALAD CITY, IDAHO.—The Idaho Light & Power Co. is contemplating extending its transmission lines to Downey and St. John, about 15 miles and increasing the output of its plant by about 50 HP. C. F. Little is Mgr., Malad City.

BENSON, ARIZ.—R. G. Arthur, has secured a franchise from the County Supervisors for an electric light and power plant at Benson. A company is to be incorporated to take over the franchise, with M. J. Cunningham, S. F. Maguire, W. M. Anderson and Peter Jackson, as directors.

PORT TOWNSEND, WASH.—The Board of County Commissioners has granted a 50-year franchise to the Olympia Power Co., to erect an electric transmission line on the highways of the county. The company expects to construct a hydroelectric power plant on the Elwha River, where 6,000-HP. will be developed.

ALHAMBRA, CAL.—The Pacific Light & Power Corporation, Los Angeles, has been awarded a 5-year contract for installing and supplying current for 350 tungsten street lamps.

CHICO, CAL.—Contracts have been let by the Pacific Gas & Electric Co., for the erection of a gas storage tank of 100,000 cu. ft. capacity in order that the capacity of the local plant may be increased. Work will be commenced within the next 60 days.

LAS PLUMAS, CAL.—The Great Western Power Co., H. H. Sinclair, Gen. Mgr., will install another unit at the power plant of a company in the Feather River here. Estimated cost, $200,000.

LONG BEACH, CAL.—The TOWNE ELECTRICAL CO., has been awarded the contract at $5,930 for electric power fixtures and lighting in the new Polytechnic High School. A. B. Sturgis is Arch.

NEEDLES, CAL.—E. H. Rose, of Los Angeles, it is reported has acquired the property of the Needles Light & Power Co. The plant will be improved and enlarged. The present plant will be duplicated, the gas plant to be operated in connection with the power plant.

REDLANDS, CAL.—The City Engineer has prepared plans for and bids will be asked shortly for ornamental and electric lighting system for the business section of the city to be extended from Olive Ave. to Cajon St., to Citrus Ave. and State St., to Orange St. and to the Casa Loma Hotel. Estimated cost, $14,000.

SANTA ANA, CAL.—The County Board of Superiors of Orange County, Santa Ana has approved a petition and has called an election for Feb. 7, on a proposition to create a lighting district, whereby county roads may be lighted by electricity.

SANTA BARBARA, CAL.—Francis W. Wilson, Arch., has designed an ornamental lighting post, and the same design has been accepted for the illumination posts for State St. The post is 13 ft. high with a tier of five lamps one large central light and four smaller ones.

WILLOWS, CAL.—The Superior California Power Co., has awarded the contract for the construction of its transmission line from a point some distance above Orland to Willows and beyond, to the SIERRA CONSTRUCTION CO. Work will begin at once. Two transmission lines will be erected by the Superior California Co., each about 30 miles long one extending from Orland to Willows and the other along the river. There will be about 100 miles of main and lateral lines to supply electricity to the towns and farms along the route for lamps and motors and also for operating pumps for irrigating purposes. Electricity for operating the system will be taken from the main lines of the Northern California Power Co. C. R. Wickes, of Willows, who has secured the franchises for the lines, is at the head of the Superior California Power Co.

SHERBROOKE, QUE.—The contract for the development of the "Drop off" power in Sherbrooke has been awarded to MORROW & BEATTIE, of Peterborough, Ont., Can., for $[illegible]3,220 (not including the hydraulic or electrical equipment), providing it meets the approval of the Board of Control, City Attorney and City Engineer. Ross & Holgate, Engineers, of Montreal, Que., will supervise the construction of the plant. The cost of the development complete is estimated at $100,000.

PORTAGE LA PRAIRIE, MAN.—The City Council is considering the installation of a municipal electric lighting plant.

PRINCE ALBERT, SASK.—The city has received permission from the Dominion Government to develop water power to the north of here and plans for the work are now being prepared. Address Mayor Holmes.

REGINA, SASK.—Plans have been prepared for extensions, additions and improvements to the municipal electric plant. Estimated cost, about $115,000. The plans include the installation of electrical machinery, bids for which have been asked. A. J. McPherson is City Comr.

SASKATOON, SASK.—Changes in the electric light plant are planned by the city to double its capacity. Estimated cost $140,656. E. L. White is City Elecn.

CALGARY, ALTA.—The City Engineer is preparing estimates of cost for the completion of the power house at Victoria Park. The cost of building and equipment will probably amount to $20,000.

STRATHCONA, ALTA.—The city will at once call for bids for furnishing machinery for the electrical plant to cost $72,000. Address the City Engineer.

BRIDGES.

*(*Denotes that this work is advertised in Engineering News.)*

VAN BUREN, ME.—An appropriation is being sought to complete the international bridge across the St. John River to St. Leonard's, N. B. Peter C. Keegan, of Van Buren, is interested.

SALEM, MASS.—The Board of Commissioners of Essex County, Moody Kimball, Chn., has had plans prepared for a 4-span steel truss bridge, with concrete floor and vitrified brick pavement. Estimated cost, $363,500. The Legislature will be asked to authorize an appropriation.

BRIDGEPORT, CONN.—The Common Council on Jan. 16 voted to issue $100,000 of bonds for the construction of a bridge across the Pequonnock River at East Washington Ave.

FULTON, N. Y.—We are officially advised that bids will be asked in about 60 days for the construction of the Broadway Bridge here. Estimated cost, $170,000. George W. Hackett is City Engr.

*KINGSTON, N. Y.—Bids will be received until 11 a. m., Mar. 2, by James F. Youghran, County Supt. of Highways, Kingston, N. Y., for constructing a steel bridge across Rondout Creek at Eddyville, and for the removal of the present metal structure and the enlargement of the present piers and abutments. For details see advertisement in this issue.

NIAGARA FALLS, N. Y.—An appropriation of $8,000 has been decided upon by William E. Harries, Supt. Niagara State Reservation, Niagara Falls, for the construction of a new bridge connecting Goat Island and Luna Island.

PATCHOGUE (L. I.), N. Y.—We are officially advised that the Long Island R. R. Co. will do its own work in constructing the overhead steel bridge here over its tracks at Ronkonkoma Ave. Noted on Jan. 26.

DOVER, N. J.—The Morris County Traction Co. is considering the construction of heavy steel bridges in place of the Wiggins and Dickerson bridges over the Morris Canal on the Rockaway to Dover road.

RAHWAY, N. J.—The construction of a bridge across the Rahway River, from East Rahway to Woodbridge Ave., Rahway, is being considered.

PHILADELPHIA, PA.—The contract has been awarded by the Philadelphia & Reading Ry. Co. to the BELMONT IRON WORKS, Real Estate Trust Bldg., Philadelphia, for Contract 53, for platforms and bridges over Percy St., at $5,494.

WILMINGTON, DEL.—The Levy Court is considering an issue of bonds for the construction of a new bridge over the Christiana River at Third St.

BALTIMORE, MD.—The State Road Engineer, Baltimore, Md., has completed a survey for the construction of the proposed new state bridge over the Nanticoke River at Sharptown, between Wicomico and Dorchester Counties. The bridge will be about 1,200 ft. long. Plans cannot be finally approved till they pass inspection by the United States Government, the stream being navigable water.

DANVILLE, VA.—We are officially advised that bids will be received about March 1 for the construction of the superstructure of a bridge at Union St. Estimated cost, $40,000. The structure will be of concrete, on rock foundation. J. O. Wayman is City Engr.

LAWRENCEVILLE, VA.—Bids will be received at Lawrenceville by P. St. J. Wilson, State Highway Comr., until Feb. 15, for the construction of a bridge over Great Creek, one mile from here.

MONTEREY, VA.—Bids will be received until noon, Feb. 9, by P. St. J. Wilson, State Highway Comr., at Monterey, for the construction of a reinforced concrete bridge over Straight Creek, Highland County. Plans and specifications can be seen at the office of the Clerk of the Circuit Court, Monterey. Plans can be secured from the Childrey, Cunday Co., Richmond.

CONWAY, S. C.—The Building Commission, J. C. Spivey, Secy., Conway, will receive bids until 3.30 p. m., Feb. 16, for the construction of a steel bridge across the Waccamaw River near Conway. Plans and specifications may be seen at the office of C. P. Quattlebaum, Chn.

AUGUSTA, GA.—Bids addressed to the City Council of Augusta, will be received by the Canal and River Commission until 4 p. m., Feb. 7, for furnishing all material and labor and constructing a masonry culvert over Beaver Dam Ditch crossing Gwinnett St., and excavating third level of canal from Gwinnett St. to Twiggs St. One contractor may bid on both contracts. Specifications and plans may be had by applying at the office of Nisbet Wingfield, City Engr. and Comr. Pub. Wks.

FERNANDINA, FLA.—The Board of County Commissioners is contemplating the construction of a bridge across Nassau River, dividing Nassau and Duval Counties and connect through hard surface road between Fernandina and Jacksonville. W. T. Wass is Chn. Comrs.

IUKA, MISS.—Bids will be received by J. F. Oaks, member Board of Supervisors of Tishomingo County, until Feb. 5, for the construction of a bridge across McNutt Mill Creek, Greene and Hubbard Road. Plans and specifications may be seen at the office of the Chancery Clerk.

VICKSBURG, MISS.—Bids will be received until noon, Feb. 6, by J. D. Laughlin, Chancery Clk., Warren County, Vicksburg, for the construction of a steel bridge over the bayou near the John Wright residence.

LOUISVILLE, KY.—We are officially advised that the FOSTER-CREIGHTON-GOULD CO., Nashville, Tenn., has been awarded by the Kentucky & Indiana Terminal Railroad Co., at Louisville, Ky., a contract for the construction of the abutments in connection with the company's new bridge and road revision. This werk comprises about 6,000 yds. of concrete and is to be finished in the early spring. Noted on Jan. 12.

COLUMBUS, OHIO.—Bids will be received at the office of the County Commissioners of Franklin County until Feb. 23, for new floors on the Weisheimer bridge and the Lockbourne bridge; for constructing the west approach to the Lockbourne bridge; two culverts, a new floor system on the Dublin bridge and for grading and graveling a portion of the Bixby Road in Madison Township.

The County Commissioners have condemned the King Ave. bridge, the Mound St. bridge over the Scioto River, and the Williams bridge north of Marble Cliff. Plans are now being made to rebuild the three bridges.

WARREN, OHIO.—The City Council has submitted to the Mahoning Valley R. R. Co. plans for the construction of the bridge at Summit St.

WASHINGTON C. H., OHIO.—The Board of County Commissioners of Fayette County, will receive bids until noon, Feb. 13, for the construction and erection of the superstructure of two steel bridges, one over the east fork of Paint Creek and one over Rattlesnake Creek, as per plans and specifications on file in the office of A. E. Henkle, County Audr.

COLUMBUS, IND.—Bids will be received until 10 a. m., Feb. 6, by the Board of County Commissioners, Columbus, for the construction of a bridge in Rockcreek Township. P. J. Slater is County Audr., Bartholomew County.

INDIANAPOLIS, IND.—The Commissioners of Marion County have postponed temporarily the letting of the contract for building a concrete bridge over Fall Creek at Capital Ave. Blaine H. Miller is City Engr.

INDIANAPOLIS, IND.—The Commissioners of Marion County received bids, on Jan. 18, for the construction of a bridge across the canal at College Ave., in Washington Township. We are officially advised that the contract has been awarded to VOLPP & FRITZ, Indianapolis, at $6,417. Albert Sahm is County Audr.

LAPORTE, IND.—Bids will be received by the Commissioners of Laporte County until Feb. 6, for the construction of a wooden bridge in Dewey Township.

MARTINSVILLE, IND.—Bids will be received by the Board of Commissioners of Morgan Countil until 2 p. m., Feb. 7, for repairing three bridges. J. S. Whitaker is County Audr.

CHICAGO, ILL.—The Finance Committee of the City Council on Jan. 21 decided upon a bond issue approximating $4,000,000 for the construction of new bridges. B. J. Mullaney is Comr. Pub. Wks.

METROPOLIS, ILL.—The Chicago, Burlington & Quincy R. R. Co. is considering the construction of a bridge at Metropolis. T. E. Calvert is Ch. Engr., Chicago, Ill.

*PEORIA, ILL.—We are officially advised that bids were received by George F. Simmons, Comr. Pub. Wks., on Jan. 24, for building a bridge across the Illinois River at Bridge St., and for the removal of piers, piling, an old wooden bridge and the debris of a fallen reinforced concrete bridge, from the site of the new bridge as follows: Milwaukee Bridge Co., Milwaukee, Wis., $166,896; Pennsylvania Steel Co., Steelton, Pa., $205,825; Cullen-Friestedt Co., $206,716; Toledo Bridge & Contracting Co., $212,276; Midland Bridge Co., $217,153; Kansas City Bridge Co., $233,900; Joilet Bridge & Iron Co., $248,000.

SHUMWAY, ILL.—The Wabash R. R. Co. will spend about $30,000 this year for filling in the old bridges spanning the Little Wabash River and rebuilding a portion of the bridge which spans the river between Shumway and Effingham, Ill. A. O. Cunningham, St. Louis, Mo., is Ch. Engr.

ORIENTA, WIS.—The County Commissioners, Washburn, Wis., have voted to appropriate $14,000 to pay half the expense of constructing a steel bridge over Iron River here.

CEDAR RAPIDS, IOWA.—We are officially advised that bids will be asked about March 1 for the construction of a concrete bridge. Estimated cost, $150,000. T. F. McConley is City Engr.

CORYDON, IOWA.—The contract for the construction of all iron bridges in Wayne County for 1911 has been awarded by the Board of Supervisors to the CORYDON LUMBER CO. The same company also secured the contract for furnishing oak lumber and cedar piling.

DES MOINES, IOWA.—The City Council has awarded the contract, it is reported, for the construction of the Melan bridge to the CLINTON BRIDGE CO., Clinton, Iowa, at $25,000.

GRUNDY CENTER, IOWA.—The County Commissioners, Grundy Center, Iowa, awarded the contract to L. F. VOLBERDING Hudson, Iowa, for the construction work and repairs and cement work on steel bridges during 1911. Bids were opened on Jan. 5.

ST. CLOUD, MINN.—Bids will be received until Feb. 6 by the city for bridge work on the St. Germain St. bridge. Estimated cost, $8,400. S. S. Chute is City Engr.

ST. PAUL, MINN.—The City Engineer has estimated the cost of constructing the Earl St. bridge at $57,000.

CHANUTE, KAN.—Bids will be received until Feb. 6 by the County Commissioners, Chanute, for constructing a bridge across the Neosho River, near Austin, and three smaller bridges.

NEWTON, KAN.—The Board of Commissioners of Butler County has let the contract to B. H. NORTHCOTT & SON, Hesston, Kan., for the construction of two iron and concrete bridges.

NEWTON, KAN.—All bids opened on Jan. 3 by the County Commissioners at Newton, for constructing the Whitewater Bridge, 75-ft. steel span, 16-ft. roadway, between Harvey and Butler Counties, were rejected. New bids will probably be received in March.

ST. LOUIS, MO.—The Terminal R. R. Association has awarded the contract to the FRUIN & COLNON CONSTRUCTION CO., Laclede Bldg., St. Louis, for the construction of the Compton Ave. viaduct. Estimated cost, $300,000.

BUCKEYE, TEX.—The St. Louis, Brownsville & Mexico R. R. Co., Kingsville, Tex., has let the contract to the UNION BRIDGE & CONSTRUCTION CO., Kansas City, Mo., for remodeling and raising trestle, 4,000 ft., at Buckeye.

MUSKOGEE, OKLA.—New plans will be prepared by the County Engineer for the construction of 32 bridges in the county. Contracts for these bridges were awarded by the old Board of County Commissioners to the Vincennes Bridge Co., and other firms. These contracts according to the Muskogee "Democrat," will be rescinded and new bids asked.

BOISE, IDAHO.—The State Senate on Jan. 20 passed three state bridge bills. Bridges are to be built across the Snake River, between Canyon County, Idaho, and Malheur County, Ore., near Payette, Idaho, to cost $25,000; across Salmon River, in Custer County, to cost $10,000, and across Snake River, near Glenn's Ferry, to cost $15,000.

SEATTLE, WASH.—R. H. Thomson, City Engr., has estimated the cost of the construction of an overhead footbridge on Pike St., between First Ave. and the water front at $6,000.

SPOKANE, WASH.—Bids will be received by the Board of Public Works until 2 p. m., Feb. 9, for the construction of a reinforced-concrete bridge across Latah Creek, at Chestnut St., between 16th Ave. and 18th Ave., according to plans and specifications filed in the office of Morton Macartney, City Engr.

VANCOUVER, WASH.—Bids will be received at the office of the County Recorder until 2 p. m., Feb. 7, for building a trestle bent bridge 160 ft. more or less in length, on the Blythestone Road, located about 1½ miles east of Battle Ground, near the Blythestone Place.

PORTLAND, ORE.—The UNION BRIDGE & CONSTRUCTION CO., Kansas City, Mo., has been awarded the contract by the city, at $557,645, for the construction of the substructure of the Broadway bridge. List of bidders noted on Jan. 12.

PORTLAND, ORE.—J. W. Morris, City Engr., has estimated the cost of the proposed new South Portland bridge, the preliminary plans for which have been completed, at $1,232,000. The plans and estimates were presented to the South Portland Club. Within a short time initiative petitions will be circulated asking that the bridge project be submitted to the voters of the city at the next municipal election. The total length of the proposed bridge is 4,000 ft., and contains a lift span 250 ft. in width, similar to that of the Hawthorne Ave. bridge.

LOS ANGELES, CAL.—The Board of Public Works has received one bid, that of the California Ornamenetal Brick Co., for the ornamental artificial stone coping and railing, columns, balconies, consoles, lighting posts, pipe ducts for lighting wires and pedestals for concrete lions, on both sides of the new Buena Vista St. Bridge, at $14,542.

LOS ANGELES, CAL.—H. T. Lelande, County Clk., will receive bids until 2 p. m., Mar. 6, for the construction of concrete arches, graveled approaches, curbs, fences, hand railings, pylons, etc., across Arroyo Seco and extension of Pasadena Ave.

LOS ANGELES, CAL.—The County Board of Supervisors of Los Angeles County has ordered that bids be received in about five weeks for the construction of a concrete bridge to span the Arroyo Seco, between Garvanza and the South Pasadena ostrich farm. Plans were prepared by the County Surveyor and call for a bridge with six concrete arches, with a fill 300 ft. long at each end. The concrete part of the structure will be 600 ft. long and of ornamental design. The cost will depend to a large degree upon where contractors can procure earth for filling; about 90,000 yds. will be required. The sum available for the construction is $144,000. Bids will be received on the railing and pylons separately.

SAN JOSE, CAL.—J. G. McMillan, County Surv., has been instructed to prepare plans and specifications for the construction of a concrete bridge on the Newell Road.

NORTH VANCOUVER, B. C.—The bridge across the Second Narrows at a cost of $1,250,000 is now assured by Vancouver voting $200,000 for the work. The SOUTH VANCOUVER BRIDGE CO. will erect the bridge.

MORRIS, MAN.—R. COATES, of Morris, has been awarded the contract for the erection of the two new pile bridges at $3.13 per ft., all material to be supplied by the town.

BUILDINGS.

*(*Denotes that this work is advertised in Engineering News.)*

BOSTON, MASS.—A building is to be erected on the parkway, Cambridge, at a cost of $200,000. The plans are by Herbert L. Wardner. The building will contain 184,500 sq. ft. of floor space.

BOSTON, MASS.—The following bids for the Phillip Brooks Elementary Schoolhouse were opened Jan. 25 by Charles Logue, Chn. Schoolhouse Comn. The first bid includes detached boiler-house. C. S. Cunningham Sons Construction Co., $96,391, $84,000; A. Varnerin Co., Inc., $96,646; William Crane, $98,678, $83,678; J. Cadigan, $99,220; A. B. Carter Co., $100,000, $84,000; Conners Bros., $108,000, $91,000; Whiton & Haynes, $111,000, $88,000. All bids were rejected and the work will be readvertised later.

BOSTON, MASS.—The Thomas Morgan Rotch hospital for the care of infants is proposed in the vicinity of Harvard Medical College. Proposed cost, $160,000, and $125,000 for furnishing. The old quarters on Blossom St. are to be abandoned. The new hospital will be 72 × 110 ft. and three stories in height, and will contain 50 beds. Henry W. Palmer, 60 State St., is Treas. of Trustees.

CAMBRIDGE, MASS.—A new police station building is proposed, and steps are being taken to start work this year. Wm. F. Brooks is Mayor of City.

CAMBRIDGE, MASS.—Bids have been received on Jan. 20 for the erection of a contagious hospital. J. A. Locatelle Co., Inc., Boston, at $72,167, was the lowest bidder for the erection of the building. Higgins & Co., Cambridge, Mass., at $4,633, for plumbing and J. J. Hurley & Co., Boston, at $8,942 for heating and ventilating. An appropriation of the sum of $120,000 has already been made for the erection of a Thorndike School, and plans have been prepared, and work will be advertised soon. Jeremiah E. Downey is Supt. of Public Buildings.

HAVERHILL, MASS.—A number of buildings to form the new City Hospital are planned. One building will be advertised soon, to cost, $65,000, to be followed by another, for contagious diseases, to cost $35,000, the capacity of both to be 100 patients. Geo. E. Hutchins is City Engr.

NEW BEDFORD, MASS.—The Soule Mill plans to erect three buildings at once, one to be for storage purposes, 90 × 100 ft., five stories of standard slow burning type, a two story ficker house, 64 × 65 ft., and a waste house, 21 × 49 ft.

SPRINGFIELD, MASS.—Plans for the new building to be erected in West Springfield for the Young Men's Christian Ass'n are to be prepared by Frank E. Elvin, Springfield, Mass., Arch.

PROVIDENCE, R. I.—Cram, Goodhue & Ferguson, of New York and Boston, have completed plans for extensive alterations and additions to Grace Church. The society expects to spend about $125,000.

GREENWICH, CONN.—Blair & Carpenter, 475 Fifth Ave., New York, Arch., will have plans ready about Feb. 4 for the residence of Miss Laura Robinson in this town. The house will be 90 × 150 ft., three stories high, of terra cotta, tile block and stucco, with tile roof.

HARTFORD, CONN.—It is reported that a building will be erected on Arch St. The site has already been secured. Architects have not yet been selected.

HARTFORD, CONN.—A 12-story office building is proposed by the Hartford National Bank at the corner of Main and Asylum Sts. The Catlin Building will be razed to make room for the improvement. The estimated cost is about $1,000,000.

NEW BRITAIN, CONN.—The plans for an addition to the High School will be ready for bidders very soon, the building will be 82 × 182 ft., three stories high, of buff brick. W. P. Crabtree, New Britain, is the Arch.

NEW HAVEN, CONN.—C. E. Joy, Arch., has completed plans for a new club-house for the New Haven Yacht Club at Morris Cove. Bids are now being received.

NEW HAVEN, CONN.—The general contract for the new $1,000,000 Taft Hotel has been awarded to V. J. HEDDEN & SONS, 1 Madison Ave., New York. The structure will be 14 stories high, and will front 202 ft. on College St. and 75 ft. on Chapel St. with a wing 49 × 54 ft. on the south end. The general contractors have awarded the following sub-contracts: Structural steel work, OWEGO BRIDGE CO., New York; granite, HENRY GARDINER, Millstone, Conn.; smokestack, FELBER ENGR. WKS., New York; exterior cut stone, JOHN A. ROWE CUT STONE CO., Bedford, Ind., and are now receiving bids on the following: Plain and armored concrete, brick masonry and terra cotta, sheet metal, roofing and waterproofing, ornamental steel and cast-iron, plastering, marble, decorating tile, and terrazza work, interior carpenter and hardware finish, boilers, high pressure steam, low pressure and hot blast heating, mechanical ventilating, plumbing, electric wiring, engine and generators, elevators, pneumatic tube, refrigerator and ice-making systems, kitchen, laundry and vacuum cleaning equipments. The Architect is F. M. Andrews, 22 Metropolitan Bldg., New York, and John B. Clermont, C. E., is Supt. Engr. in Charge.

WATERBURY, CONN.—Plans will soon be ready for a 12-story office building for William Reither. The structure will have a steel frame and pressed brick front. The estimated cost is about $200,000.

ALBANY, N. Y.—The bids received on Jan. 24, by the Trustees of Public Buildings for interior work in the new Educational Building were: For electric lighting fixtures, Black & Boyd Mfg. Co., New York, $133,873; The Enos Co., New York, $139,500; Mitchell Vance Co., New York, $154,350. For metal book stacks and metal cases, Art Metal Construction Co., Jamestown, N. Y., (a) $446,395, (b) $422,829; Snead & Co. Iron Works, Jersey City, N. J., (a) $506,405, (b) $461,565. For wood book cases, Library Bureau, New York, $39,947; Amann Mfg. & Const. Co., New York, $49,800; J. W. Bishop Co., New York, $49,874; D. S. Hess & Co., New York, $51,200; Randolph McNutt Co., Buffalo, N. Y., $52,500; Derby Desk Co., New York, $56,859; Brunswick-Balke-Collender Co., New York, $67,900; Frederick Rose, New York, $87,702. For electric wiring for book stacks and book cases and extension to existing plant, Lord Electric Co., New York, $89,423; Tucker Electrical Const. Co., New York, $105,298. For elevators and book lifts, Otis Elevator Co., New York, $19,847; National Elevator Co., New York, $20,450; A. B. See Electric El. Co., New York, $25,750. For glazed grills and miscellaneous ornamental iron and bronze items, The Gorham Co., New York, $45,889; Wm. H. Jackson Co., New York, $60,350; Tiffany Studios, New York, $63,451; John Williams, Inc., New York, $67,500; Hecla Iron Works, Brooklyn, N. Y., $85,000. For interior decorations, W. P. Nelson Co., New York, $29,873; Ritterbush & Hull, New York, $34,514; Neptune B. Smyth, Inc., New York, $34,853; Frederick Rose, New York, $45,033; D. S. Hess & Co., New York, $53,800; Mack, Jenney & Tyler, New York, $57,800; Morris Kantrowitz, Albany, N. Y., $64,000; James I. Wingate & Son, Boston, Mass., $79,000. F. B. Ware is State Architect; Palmer & Hornbostel, of New York, are official architects for the building.

BLAUVELT, N. Y.—F. A. McNeely, Secy. State Bd. of Armory Comrs., will receive bids until Feb. 7 for the erection of pump house, ice houses and magazines, at the New York State Rifle Range.

BUFFALO, N. Y.—The congregation of the Chapel of the Blessed Sacrament, Rev. Jas. F. McGloin, Pastor, 1015 Delaware Ave., has plans in preparation for the erection of a parochial and institutional school with auditorium, club and recreation rooms, 2 stories and basement, 35 × 140 ft., of stone, brick and structural iron, on Atlantic Ave. near West Utica St. The estimated cost is $30,000.

FT. H. G. WRIGHT (New London, Conn., post-office), N. Y.—Capt. F. T. Arnold, Constr. Q. M., U. S. A., New London, Conn., will receive bids until Feb. 18 for the erection of a brick Q. M. and Ordnance storehouse at Ft. H. G. Wright.

MALONE, N. Y.—The village taxpayers voted to expend $50,000 for an addition to Franklin Academy. J. F. Wright is Pres. of the Board of Education.

NEW YORK, N. Y.—Plans have been filed for the construction of a 25-story building on Madison Ave., to be occupied exclusively by doctors and dentists.

NEW YORK, N. Y.—James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., has made the following awards in connection with the New York Assay Office building: Two electric elevators: OTIS ELEVATOR CO., 17 Battery Place, New York, $14,520; Conduit and wiring, JANDOUS ELECTRIC EQUIPMENT CO., 111 West 30th St., New York, $3,260.

NEW YORK, N. Y.—Plans have been prepared by Irving B. Ellis, Arch., for the erection of a 2-story building, 171 × 100 ft., on Flatbush Ave., Brooklyn. The estimated cost is $65,000.

NEW YORK, N. Y.—Plans are in the course of preparation by B. J. Medoff, 518 Spruce St., for the erection of a 1-story brick motion picture theater at 132 South Fifth St. Isaac Levin, Fifth and Morris Sts., is the owner. Bids will be asked for soon.

NEW YORK, N. Y.—Two 6-story brick and stone lofts, 40.1 × 84.3 and 30 × 85, plastic slate roof, will be erected on Hudson St. by Greenwich Investing Co., 69 West 128th St.; L. F. J. Weiher, 271 West 125th St., is the architect. The estimated cost is $120,000.

A 10-story brick and stone warehouse and office building, 49.7 × 73.3, will be erected on Pearl St., corner of Elm St., by Harrison Estates, 27 William St.; Goldwin Starrett & Van Vleck, 45 East 17th St., are the Archs. The estimated cost $175,000.

Henry R. Drowne, 306 West 78th St., will erect at 147 West 36th St., an 8-story brick and stone office building. Thomas Tryon, 39 East 28th St., is the Arch.

Plans are being prepared by Geo. Fred Pelham, 507 5th Ave., for the construction of two elevator apartment houses on the north side of 141st St., 275 ft. west of Lenox Ave. The buildings will be six stories high, 125 × 95.11 ft. each, with all modern equipments. Kramer Contracting Co., 35 Nassau St., is the owner. The estimated cost is about $400,000.

Plans are being completed by C. B. J. Snyder, 500 Park Ave., Supt. of School Bldgs., for the following school buildings: One at East 12th St., between Avenues B and C, to cost $300,000; one for the Bronx, on Randolph Ave., between 172d and 173d Sts., estimated cost $275,000; and one to be erected at Pacific and Union Hall Sts., Jamaica, L. I., to cost $200,000.

D. H. Burnham & Co., Chicago, Ill., have been commissioned to prepare plans for the new 30-story office building for The Continental Fire Insurance Co. interests, to occupy an area of 20,000 sq. ft. at 78-88 Liberty St., extending through to Nos. 13-27 Cedar St. The cost has been estimated to exceed $2,000,000.

The contract for mason work on the 12-story loft building for the George Backer Construction Co., 1182 Broadway, has been awarded to PETER COMBS, 62 West 45th St. Rouse &Goldstone, 12 West 32d St., are the Archs. The estimated cost of the building is $200,000.

David Morrison, 119 West 33d St., has been awarded the general contract for extensive interior alterations to the 5-story building, at 111-113 West 28th St. The improvement also consists of an entire new front and a rear extension.

Plans will soon be completed for the construction of the 12-story building, 48 × 98 ft., which B. Barnett, 2228 Broadway, proposes erecting at 19-21 West 36th St. Schwartz & Gross, 347 5th Ave., are the Archs.

The Rapelyea Building Co., Fleer Bros., 281 Tompkins Ave., are having plans prepared for the improvement of McKinley Ave. and Enfield St. buildings, with twenty-three 2-story brick, each measuring 20 × 35 ft. The cost is nearly $100,000. H. Vollweiler, 696 Bushwick Ave., Brooklyn, is Arch.

RANDALL'S ISLAND, N. Y.—Bids will be received by Michael J. Drummond, Comr. Pub. Charities, New York City, until Feb. 7, for erecting an industrial school at the New York City Children's Hospital and Schools, Randall's Island.

RYE, N. Y.—The American Yacht Club has voted to issue bonds for a $100,000 club house at Rye, N. Y. Don Barber, of Rye, Arch. Joseph McDonough, Rye, Club Pres.

WHITE PLAINS, N. Y.—The Lawyers Title Insurance & Trust Co. has signed contracts for the erection of a $75,000 office building on Railroad Ave., White Plains, N. Y., to be finished by next fall. Work will start in April.

JERSEY CITY, N. J.—Plans have been prepared by Geo. W. Van Arx, 15 Exchange Pl., for the construction of a 5-story brick and limestone apartment house, for John Swenson, Warren St. The estimated cost is $70,000.

NEWARK, N. J.—Richard W. Erler, 45 Clinton St., Arch., is preparing plans for a brick and stone public bath house, 1 and 3-stories, 75 × 65 ft., to be erected by the city of Newark at Clayton and West Sts., to cost approximately $100,000. Werner & Windolph, 27 West 33d St., N. Y., are the Archs.

PRINCETON, N. J.—Plans are being prepared by Seymour & Paul A. Davis, 1600 Chestnut St., for the erection of a school. There will be three stories, slate roof, steam heat and stone construction. The estimated cost is about $75,000. Bids will be asked for soon.

SECAUCUS, N. J.—The First National Bank of Secaucus has purchased a plot of three lots from Ernest Zitzman at the southwest corner of the Paterson Plank Road and Humboldt St. on which a modern brick building will be erected.

WOODBURY, N. J.—Charles R. Peddle, 136 South Fourth St., is reparing plans for the erection of a 3-story high school. The building will be of stone construction, slate roof and steam heat. The School Board of Woodbury is the owner. The estimated cost is about $75,000.

BERKELEY, PA.—KIDDER & McCULLOUGH have been awarded the contract for the construction of a modern theater for Berkeley. The building will be located at the corner of Haste St. and Shattuck Ave. and will be three stories high.

HUMMELSTOWN, PA.—The United Brethren Church at the corner of Main and Railroad Sts. will be razed and a new edifice will be built during the summer.

PITTSBURG, PA.—Bids will be received by the Couax Sub-School Dist. of Pittsburg, at the office of Edw. Stoltz, Archt., 213 6th Ave., Pittsburg, until Feb. 3, for constructing a fireproof school on Phillips Ave. and Wm. Pitt Boulevard.

PITTSBURG, PA.—Bids will be asked for soon for the construction of 24 buildings to be built on Schenley Terrace by the Schenley Farms Co. The buildings will be of colonial design. Janssen & Abbott are the Archs.

PHILADELPHIA, PA.—The Treacey, Morris Co. will erect a 7-story commercial building at 633-37 Arch St., to cost upwards of $100,000.

PHILADELPHIA, PA.—Plans are being prepared by Walter Smedley for the construction of a reinforced concrete building at 633-37 Arch St. The estimated cost is $250,000. Chas. E. Morris is the owner.

PHILADELPHIA, PA.—A 7-story brick and reinforced concrete building will be erected for Tracey Morris & Co. Estimates for the building are being taken by J. G. Doak & Co. and Thofas Little & Son.

BALTIMORE, MD.—Plans have been completed by Wm. Arthur White for the erection of a hall at 1104 W. Baltimore St. for the Junior Order United American Mechanics. The estimated cost is about $40,000.

BALTIMORE, MD.—Bids will be received until Feb. 11 by Geo. W. Rife, 1 N. Calvert St., for theater at 311-17 W. Fayette St., of brick and concrete construction, fireproof, three stories, 156 × 100 ft. Otto G. Simonson, American Bldg., Baltimore, Asosciate Arch.

BALTIMORE, MD.—A 1-story corrugated iron warehouse is to be erected at the southeast corner of Appleton and Wilson Sts., Northwest Baltimore, by the Newark Gypsum Block Co. W. S. Isaacs is Supt.

DELMAR, MD.—Bids are being asked for the construction of a city hall for Delmar. The building will be two stories high with a tower.

HAGERSTOWN, MD.—National Biscuit Co. of New York, awarded contract to ROY LOWMAN, Hagerstown, for erection of warehouse, three stories, 38 × 100 ft.

WASHINGTON, D. C.—Bids will be received by the Comrs., D. C., until Feb. 3, for erecting a school, No. 165.

WASHINGTON, D. C.—Bids will be received by James Knox Taylor, Superv. Arch. Treasury Dept. D. C., until 3 p. m., Mar. 8, and then opened, for the construction, complete (including plumbing, gas-piping, heating apparatus, electric conduits and wiring), of the U. S. Post Office at Brookhaven, Mass. Drawings and specifications, may be obtained from the custodian of site at Brookhaven, Mass., or at this office at the discretion of the Superv. Arch.

NORFOLK, VA.—Henry Kern will erect a 3-story modern office building on the site of the old post-office, which is being razed to make room. J. W. JOHNSON is the contractor. B. F. Mitchell, Norfolk, is the Arch. The estimated cost is about $40,000.

RICHMOND, VA.—Confederate Memorial Association, J. Taylor Ellison, Pres., has selected plans for erection of institute, 69 × 169 ft. and 50 ft. high, one story, 16 galleries grouped around central hall, fireproof construction, face of southern granite up to floor line, southern marble above line, doric design. Estimated cost, $150,000. Bissell & Sinkler, 805 Bailey Bldg., Philadelphia, Pa., Archs.

ROANOKE, VA.—The city plans erection of City Hall and will vote on bond issue to purchase site at cost of $150,000. F. L. Bibboney, City Engr.

JACKSONVILLE, FLA.—Bids will be received by W. M. Bostwick, Jr., Chmn. Water Wks. Bd., until Feb. 6, for constructing a building for the use of the Fire Dept.

TALLAHASSEE, FLA.—O. K Yonge, Chn. Bd. of Control of the State of Florida, at the Leon Hotel, Tallahassee, will receive bids until Feb. 4, for erecting the Mechanics Arts Bldg., hospital building and agriculture building for the Florida A. & M. College, Tallahassee.

BIRMINGHAM, ALA.—An 8-story building, modern in every detail, will probably be rected on the southeast corner of Second Ave. and Nineteenth St., by Louis Pizitz. The estimated cost is $100,000.

JACKSON, MISS.—Whilden & Trice have prepared plans for the erection of a 3-story building for the Charity Hospital on State St. The estimated cost is about $75,000.

LOUISVILLE, KY.—A 10-story apartment house building will be erected on the southeast corner of Third Ave. and Broadway. Plans have been prepared by Donald & Dodd. The estimated cost is about $400,000.

ASHTABULA, OHIO.—The Board of Education, Harbor Special School District, Ashtabula, will receive bids until Feb. 14, for erecting a school at Lake and Walnut Sts. (including plumbing, electric wiring, ventilating and heating, etc.). H. F. Bugbee is Clk.

CLEVELAND, OHIO.—The Detroit & Cleveland Navigation Co., 1110 Superior Ave., N. W., Cleveland, Ohio, are having plans prepared by the company's engineers for a new pasenger depot, warehouse and dock, to be located on the lake front, foot of Ninth St. East. Estimated cost, $150,000 to $250,000.

COLUMBUS, OHIO.—Springer Home Co. was incorporated recently at Columbus by W. A. Schmidt and others for the purpose of erecting a building in Cincinnati to cost $100,000 for the Catholic young men.

COLUMBUS, OHIO.—Revised plans and specifications for the interurban depot to be erected at Columbus by the Ohio Electric Co. have been received from the office of D. H. Burnham, Arch. Only a few invited contractors will figure on the work.

COLUMBUS, OHIO.—The 4-story business block at the northwest corner of High and State St. will be extensively remodeled next summer and plans are now being prepared under the direction of the owner.

COLUMBUS, OHIO.—Plans have been prepared by F. L. Packard, Arch., for a warehouse to be erected by the Cleveland Terminal Warehouse and Cold Storage Co., Cleveland, at Cleveland, Ohio. The structure will be 132 × 148 ft. and eight stories high.

GROVER HILL, OHIO.—J. W. Owens, Clk., Board of Education, will receive bids until Feb. 7 for $17,500 school bonds.

LAKEWOOD, OHIO.—Bids will be received by Frank R. Thrall, Clk., Board of Education, until Feb. 14, for erecting an addition and making alterations to the East School. Chas. W. Hopkinson, Rose Bldg., Cleveland, is Arch.

PAULDING, OHIO.—An armory building will be erected here on a site recently secured by the state.

DELPHI, IND.—Trustees of Mt. Olive Masonic Lodge will ask for bids for the erection of a new lodge hall and business building as soon as plans are completed.

INDIANAPOLIS, IND.—Otto Wolf, Great Chief of Records, Indiana Trust Bldg., says that plans are being made for the erection of a modern hotel and lodge building by the Red Men, of which he is the head. The building will be erected on the corner of Market St. and Capital Ave., facing the State House. W. W. Drinkwater, Kokomo, Ind., is Chn. Building Committee.

INDIANAPOLIS, IND.—The legal department has recommended a bond issue of $200,000 for the erection of three enginehouses and fire department headquarters. Nicholas Shrader, Chairman Board of Public Works.

INDIANAPOLIS, IND.—Bids are being asked for the third time by D. A. Bohlen & Son, Architects, for the construction of the new St. Vincent's Hospital on the Fairbank site. The bids will be opened Feb. 11. On two former occasions the bids were all rejected. The revised plans are for a 5-story pressed brick and stone structure with a 300-ft. frontage on Fall Creek Boulevard. Bids will also be received for [illegible] power-house.

LAPORTE, IND.—J. B. R[illegible] is preparing to ask for bids for the erection of a large flat building. Allen & Son [illegible] Archs.

LAPORTE, IND.—Allen & [illegible] Archs., are preparing plans for the erection of a residence which W. A. Jones, [illegible]go, manufacturer, will erect at Pine [illegible] Pine Lake this spring.

NEW CASTLE, IND.—The City Council has ordered plans and will soon ask for bids for the erection of a fire department headquarters building and the installation of an auxiliary water plant.

NORTH GROVE, IND.—Gr[illegible] & Fair, Fort Wayne, Ind., Archs., [illegible] prepared plans for the erection of a new high school in North Grove. Bids will be received until Feb. 11.

PLYMOUTH, IND.—The city officials are preparing to ask for bids for the construction of a Carnegie library building.

TALLISTON, IND.—The Pennsylvania & Michigan Central R. R. are preparing plans for the erection of a union passenger and freight station at this point. It is understood the work will be let to contract.

TERRE HAUTE, IND.—A campaign is being made for the erection of a $300,000 building for the Y. M. C. A. at this place.

WABASH, IND.—Trustee B. F. Hubbard has approved plans for the erection of a new school building on the Chippewa pike site north of Wabash. Bids will be solicited soon.

DETROIT, MICH.—Albert Kahn and E. Wilby, 800 Trussed Concrete Bldg., are about ready for figures on a new 3-story and basement store and office building, 110 × 130 ft., for Thos. J. Barry, 93 Elliott St. Structure is to be of press and stock brick, Bedford stone, composition roof, galvanized iron cornice and skylight, structural iron and electrical fixtures. The estimated cost is about $40,000.

DETROIT, MICH.—The Board of Education, Wm. Lee, Secy., 50 Broadway Ave., on Jan. 24 prepared the following budget of $1,002,000 for the following new schools: $280,000 will be asked for a new high school to be located at Grand River Ave. and the Boulevard, and $155,000 will be asked for a site for same. $79,000 will be asked for a new 16-room school in the vicinity of Fox Creek Rd. and Kercheval Ave. $107,000 will be asked for a new 16-room building to replace the present Clay school. $88,000 will be asked for a new 18-room school to be located near Newland and Forest Ave. $88,000 for a new building to be located at Taylor Ave. and Hamilton Blvd. $58,000 for an 8-room addition to the Eastbrook school and $54,000 for an 8-room addition to Franklin school. $17,000 was also asked for enlarging the John F. Bennet school from a 12 to a 16-room building. Besides the $1,002,000 budget, $60,000 will be asked for furnishings and fixtures for the Cass Ave. Technical School. New heating and ventilating systems are asked for Fairbanks and Palmer schools.

HOLLAND, MICH.—The Treasury Dept., Washington, D. C., has selected a site, 165 × 132 ft., at the corner of Tenth & River Sts., Holland, Mich., upon which a new federal building will be erected in the near future. The site was purchased at $14,000.

JACKSON, MICH.—A hotel will be erected here by Gov. Chase S. Osborn and Charles R. Osborn. There will be constructed a big auditorium in connection with it. It is planned to spend about $200,000.

MAPLE RAPIDS, MICH.—Bids will be received by the Board of Education until Feb. 9, for the erection of a concrete school, plans by Fisher Bros., Pontiac.

TRAVERSE CITY, MICH.—J. C. Peterson, Traverse City, Mich., will receive bids soon on a new 3-story and basement addition for the County Infirmary for Grand Traverse County. Addition to be 62 × 85 ft. and be constructed of press and stock brick, cut stone, reinforced concrete, structural iron, sheet metal cornice and electrical fixtures.

AURORA, ILL.—Bids will be received by the Bldg. Com. of the Board of Education at the Aurora National Bank, until Feb. 15, for erecting the East Side High School. J. C. Llewellyn, 164 Dearborn St., Chicago, Ill., is Arch.

FREEPORT, ILL.—Bids will be received by the Secretary of the Board of Education until Feb. 21, for constructing a school. Plans by Patton & Miller, 140 Dearborn St., Chicago, Ill. C. F.

McLEANSBORO, ILL.—A court-house will be erected here by the Hamilton County citizens at an estimated cost of $75,000.

FOND DU LAC, WIS.—J. E. Hennen, Fond du Lac, Wis., Arch., has been commissioned to prepare plans and specifications for a new armory for Company E, First Wisconsin Infantry. Carl Bruegger is Chn. of building committee.

GLIDDEN, WIS.—Bids for the erection of a combined grade and union free high school building, including all labor and material, will be received by the Board of Education of the Village of Glidden, Wis., until 10 a. m., March 1. Plans and specifications were prepared by Henry Wildhagen, Ashland, Wis.

LIVINGSTON, WIS.—Board of Education of the Livingston High School District, Livingston, will receive bids until Feb. 1[illegible], for erecting a brick school. H. Kleinhammer, of Platteville, is the Arch.

MILWAUKEE, WIS.—The Wisconsin Telephone Co., Alonzo Burt, Pres., has purchased the northeast corner of Wright and 28th Sts., as a site for the proposed new $100,000 Northwest exchange building, to be erected in 1911. Plans are being prepared by A. C. Eschweiler, Arch., 709 Goldsmith Building, Milwaukee. The structure will be of brick and stone construction, three stories high and strictly fireproof throughout.

MILWAUKEE, WIS.—The First National Bank, represented by the Eastland Co., composed of its chief directors, has purchased the southwest corner of Mason and East Water Sts., 120 × 120 ft., as a site for its new banking house, to be occupied also by the First Savings & Trust Co. The site cost $275,000. According to Fred Vogel, Jr., Pres. of the Eastland Co. and First National Bank, the new building will be erected this year and the directors are now preparing preliminary plans. The architect has not yet been chosen. No approximate of the cost can be obtained as yet.

MILWAUKEE, WIS.—An exchange will be constructed here by the Wisconsin Telephone Co. at Twenty-eighth and Wright Sts. The building, which will be fireproof throughout, three stories high, and will be constructed of brick and trimmed with Bedford sandstone. The estimated cost is about $100,000.

STEVENS POINT, WIS.—Bids were received as follows on Jan. 25 by the Supervising Architect of the Treasury, Washington, D. C., for the construction of a post-office at Stevens Point, Wis.: Ambrose B. Stannard, New York, $52,000; Harman Bros., Williamsport, Pa., $56,000; Conners Bros. Co., Lowell, Mass., $56,200; Northern Construction Co., Wilwaukee, Wis., $53,000; Charles W. Gindele Co., Chicago, $53,115; Carl J. Lange, Appleton, Wis., $55,600; General Construction Co., Milwaukee, Wis., $50,865; King Lumber Co., Charlottesville, Va., $52,916; J. E. & A. L. Pennock, Philadelphia, $54,800; P. M. Hennessey Construction Co., St. Paul, Minn., $58,169; James Corse, Racine, Wis., $47,240; G. Maffioli, Rockford, Ill., $54,850; R. S. Moore, Lafayette, Ind., $53,580; George W. Stiles Construction Co., Chicago, $56,950; W. D. Lovell, Minneapolis, Minn., $49,700.

ALBERT LEA, MINN.—Plans are being prepared by Alban & Hausler, Archs., 408 Chamber of Commerce, St. Paul, Minn., for the construction of a city and county Hospital here. It will be three stories high, 42 × 94 ft., of reinforced-concrete construction. L. Kemper, city, is Chn. of the Hospital Association. Cost, $40,000.

BELLEPLAINE, MINN.—Bids will be received for a brick church building by Albert Schultz, Belle Plaine, Minn., until Feb. 15, at 2 p. m., of said day, at the old Church Bldg., located at the corner of Block 104, Lots 22 and 23, on corner of Chestnut and Prairie Sts.

CROOKSTON, MINN.—Bids will be received by W. T. Carlisle at the office of Bert D. Keck, Architect, Crookston, Minn., until 3 p. m., Feb. 10, for furnishing the material and labor and complete erecting, for a building for Crookston Lodge No. 342 B. P. O. Elks to be built in the city of Crookston, Minn.

HENNEPIN, MINN.—A 10 or 12-story building will be erected by the Hennepin Holding Co. on property at Nos 613-617 Hennepin Ave., which has the control of this site. This is 100 ft. front by 150 deep to the alley, with 50 ft. adjoining for a future addition. The estimated cost is about $250,000.

MINNEAPOLIS, MINN.—An Art Museum will be erected here to cost about $500,000. A site has already been secured. E. J. Carpenter, Society of Fine Arts, is interested.

ST. PAUL, MINN.—The Finch Van Styck & McConville Co. awarded the contract to the GEORGE J. GRANT CONSTRUCTION CO., for a warehouse of the mushroom system of reinforced concrete. The main building will be eight stories and basement, 195 × 150 with a 2-story and basement annex, 137 × 50. Jas. F. Denson, 706 Germania Life is architect, C. A. P. Turner, 816 Phoenix Building, Minneapolis, is Engr.

ST. PAUL, MINN.—Olaf Swenson, 945 Clark St., was the low bidder, at $325,000, for the construction of the new Millard Hall and the anatomy building at the state university, on plans prepared by C. H. Johnston, 715 Capital Bk. Bldg., city. The contract will not be formally awarded until the legislature takes action on certain measures which concern the construction of all buildings by the state. Chas. Halvorson is Chn. of the State Board of Control.

ST. PAUL, MINN.—Bids will be received by H. P. Keller, Mayor, until 11 a. m., Feb. 11, for the general construction of the new Richards Gordon grade school to be built at Hamline and Edmund Aves. Bids were opened on Jan. 21 for this building but an offer by one of the bidders later, to reduce his figure prompted the Mayor to readvertise for bids. Plans were drawn by A. F. Gauger, Arch., 302 American Bank Bldg., city. Cost, $50,000.

ST. PAUL, MINN.—The contract for the erection of the superstructure of the new Novices' Home for the Sisters of St. Joseph has been awarded to JOHN H. HOFFMAN at $89,000. The structure will be four stories in height, of fireproof construction, designed by John H. Wheeler, 1006 N. Y. Life Bldg., Arch. The foundation is in, the contract having been awarded last fall to JOHN H. HOFFMAN.

ATCHISON, KAN.—Plans will be prepared by Saylor & Seddon, Kansas City, Mo., for a new hardware wholesale house for Blish, Mize & Stillman Hardware Co. The estimated cost is about $150,000.

INDEPENDENCE, KAN.—Bids were received as follows on Jan. 26 by the Supervising Architect of the Treasury, Washington, D. C., for the construction of a post-office at Independence, Kan.: Wurster Construction Co., Wichita, Kan., $67,323; Latimer & Benning, Kansas City, Mo., $59,464; Fred. Tarry & Son, Leavenworth, Kan., $54,[illegible]39; Hiram Lloyd Building & Construction Co., St. Louis, Mo., $60,452; Randall & Stewart, Oklahoma City, Okla., $63,351; J. E. & A. L. Pennock, Philadelphia, $59,200; Northern Construction Co., Milwaukee, Wis., $63,000; M. Yeager & Sons, Danville, Ill., $62,960; Deiter & Wenzel Construction Co., Joplin, Mo., $59,683; Conners Bros. Co., Lowell, Mass., $65,400; W. D. Lovell, Minneapolis, Minn., $54,300.

AINSWORTH, NEB.—Bids will be received by M. C. Moore, Secy. School Board, until Feb. 10, for erecting a 2-story school. J. R. Smith, Lincoln, is Arch.

RUSHVILLE, NEB.—Bids will probably be received by J. F. Wasmund, Jr., Co. Clk., until Feb. 15, for erecting a jail and sheriff's residence. Misener & Stockhome, Omaha, Neb., is Arch.

EMERY, S. DAK.—Bids will be received by Rev. G. B. Hoffman, Emery, until Feb. 23, for erecting a 2-story and basement brick school. Plans have been prepared by Jos. Schwartz, Sioux Falls, S. Dak.

HOT SPRINGS, S. DAK.—Rev. Thallman, Hot Springs, is interested in the building of a hospital in Hot Springs, it is reported. The estimated cost is about $75,000.

ONIDA, S. DAK.—F. C. Barber, Co. Audr., will receive bids until Feb. 16, for erecting a court house. Plans by Black Hills Co., Deadwood, S. Dak.

SIOUX FALLS, S. DAK.—Bids will be received Feb. 8 by Co. Comrs. at Sioux Falls, for erecting a county jail, to cost $50,000, it is reported.

WAGNER, S. DAK.—The Bldg. Com. of the Roman Catholic Church, will receive bids until Feb. 15, for erecting an edifice. Plans by Jos. Schwartz, Sioux Falls, S. Dak.

GRAND FORKS, N. DAK.—C. J. Evanson, City Audr., will receive bids until Feb. 20, for constructing City Hall; also bids for the heating and ventilating, electric wiring and plumbing. J. W. Ross is Arch.

ST. LOUIS, MO.—The Thomas O'Reilly Real Estate Co. will erect a 9-story mercantile building on the northwest corner of 17th St., running from Lucas to Washington Aves. A. B. Grove is the Arch. The estimated cost is $144,000.

*BEEVILLE, TEX.—W. C. WHITNEY, Beaumont, has been awarded the contract to erect the court house at $72,050. Stephenson & Heldenfels, Beeville, are the Archs.

GALVESTON, TEX.—Bids will be received until 2 p. m., Feb. 11, by the Secretary of Comerce and Labor, Washington, D. C., for furnishing all the labor and materials involved in the construction of a frame Immigrant Station building on Pelican Spit, in Galveston Harbor. Drawings and specifications, copies of which may be obtained at the office of Stowe & Stowe, Archs., Galveston and Houston, Tex.

GALVESTON, TEX.—Alfred Hampton, Inspector in Charge, Immigrant Service, Galveston, will receive bids until Feb. 11, for erecting a building on Pelican Island, in the harbor of Galveston, for use as an immigrant station. The estimated cost is about $70,000.

OKLAHOMA CITY, OKLA.—James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., has made the following awards in connection with the post-office building at Oklahoma City, Okla.: Heating and ventilating: McMAHON CO., Kansas City, Mo., $20,800; Gas piping, ARNOLD & WETHERBEE, INC., Oklahoma City, Okla., $6,223.

DENVER, COLO.—A National hospital will be erected by the Jewish Charitable and Educational Union of St. Louis, Mo. $75,000 has been donated.

SILVER BELT, ARIZ.—The contract for construction of new Presbyterian church will probably be let soon. Home Building & Construction Co. prepared plans for same.

LOS ANGELES, CAL.—H. F. BEAUCHAMP, 442 Virgil Ave., has secured the contract for the erection of a 2-story brick machine shop, 40 × 100 ft., for J. L. Reynolds, 1125 West 36th St. Pioneer roofing, cement and plant floor. To be occupied by Rudat & Schwab, copper, brass and sheet metal workers.

FORT WINFIELD SCOTT, CAL.—Bids will be received in triplicate until 11 a. m., Feb. 4, by Major George McK. Williamson, Quartermaster, U. S. Army, for constructing the following buildings (including plumbing, heating, electric wiring and fixtures), one field officers' quarters, plan 235-C; two field officers' quarters, plan 235-D; four double company officers' quarters, one quarters for four company officers, three double non-commissioned officers' quarters, one administration building, one band barrack, one guard-house, one quartermaster and commissary storehouse and one dispensary.

LONG BEACH, CAL.—The trustees of the Long Beach City High School district have awarded general contract to Lynn S. Atkinson, Byrne Bldg., Los Angeles, for erecting the Polytechnic high school, amount $118,966, exclusive of plumbing, heating and wiring. The specifications provide for concrete foundation, cement and maple floors, reinforcing mesh expanded steel, Hy-rib lath reinforcing, Imperial waterproofing, artificial stone pillars, brick plastered walls, pressed brick, 75 cts. per sq. ft. tile floors, iron and steel work, mission or equal plaster, Keene's cement wainscots, Herringbone or Ingot Metal lath, galv. iron skylights, ventilators, etc., steel ceilings, fire doors, manufactured roofing, Cabot's deadening felt, Hyloplate black boards, pine trim, lockers, glazing, $800 allowed for finish hardware, painting and finishing. Belgium, Adams & Elting, or equal stains, Pratt & Conklin, Standard Varnish Co.'s or equal varnishes. M. A. B. Sturges, Long Beach, Cal., is the Arch.

PASADENA, CAL.—GUY BLISS, 120 W. Colorado St., has been awarded contract for erecting 2-story brick store and office building at corner of Union St. and Broadway for W. D. Davies, exclusive of plumbing, heating, wiring and finish hardware. J. J. Blick, Dodworth Building, Arch. The building will be 120 × 117 ft., with concrete foundation, cement floors and walks, Los Angeles Pressed Brick Co.'s Old Gold pressed brick front, tile entrances, prismatic sidewalk lights oak and pine floors, deadening felt, plate glass and drawn copper store fronts.

PLACERVILLE, CAL.—Bids will be received until Feb. 7 by the Bd. of Superv. for the erection of a court house and jail. The estimated cost is about $95,000. T. C. Atwood, is Co. Clk.

SAN BERNARDINO, CAL.—The Carlsbad Guano & Fertilizer Co. has been incorporated here with a capital stock of $50,000, fully paid. The company intends erecting a building here. J. D. Langford, A. Gregory, H. B. Hinckley, E. N. Nahmens, all of Redlands, Cal., are directors.

SAN FRANCISCO, CAL.—Plans have been completed for the erection of a hotel on Kearny St., between California and Sacramento, which will contain 265 rooms and rank as one of the best of the second-class hotels in San Francisco.

QUEBEC CITY, QUE.—SIMONEAU & DION, Sherbrooke, Que., have been awarded the contract for the erection of an office building here for the Quebec Railway, Heat & Power Co., at $500,000.

FORT WILLIAM, ONT.—JOHN KING, of this city, has been awarded a contract by the National Transcontinental R. R. Commission for the erection of practically all railroad buildings along the line between Fort William, Ont. and Winnipeg, Man.

ST. JOHN, N. B.—MICHAEL SULLIVAN, Kingston, Ont., has been awarded the contract for the erection here of the Dominion Government Armory at $255,000.

HALIFAX, N. S.—Dalhouse University has purchased the Studley estate, 40 acres, owned by the late Dr. Robert Murray, for $50,000. New college buildings will be erected.

VANCOUVER, B. C.—The British Columbia Telephone Co., Geo. H. Halse, Mgr., has awarded to SMITH & SHERBOURNE, the contract for its new telephone exchange at Kitsilano, at $44,000.

VICTORIA, B. C.—A local syndicate is having plans prepared for a combined theatre and business block to be erected on Broad St. at an estimated cost of about $750,000.

CALGARY, ALTA.—The Canadian Pacific Ry. (F. W. Peters, Asst. to Vice-Pres., Winnipeg), has completed arrangements with the city council, whereby, in consideration of certain exemptions, the Ry. will erect a $300,000 hotel. About $100,000 will be spent on preliminary work this year.

WINNIPEG, MAN.—The Mortgage Co., Canada (A. Gouzee, Mgr.), has purchased for $45,000 a site on Garry St. upon which will be erected a new 3-story office building this spring.

SAN LUIS POTOSI, Mex.—The National Rys. of Mexico is clearing the ground here preparatory to constructing extensive new shops and terminals. It is announced that $4,000,000 Mexico currency, which is equivalent to $2,000,000 gold, will be expended in the improvements. The main general shops of the whole Government merger system will be located here and will give employment to more than 4,000 men. The different buildings will be equipped with the latest, modern machinery, and, in addition to the general repair work, a considerable amount of original construction of equipment will be done. The terminals will embrace an extensive trackage system, well laid out and substantially constructed in every way. The company will also build a handsome union passenger and freight station here. With the exception of the capital of the republic, San Luis Potosi is the largest railroad center of the Government merger system. It is more centrally situated than any other city from which the lines of the system radiate and for that reason it was selected as the site for the general shops. In addition to being situated on the main line of the old National R. R., San Luis Potosi is on the line of the former Mexican Central's division that runs from Aguascalientes to Tampico. It is understood that the improvements which the National Rys. of Mexico will make here are a part of the general plan to bring its property up to the highest possible physical standard, over the entire system.

WATER SUPPLY—IRRIGATION.

SALEM, MASS.—William S. Johnson, Consult. Engr., 101 Tremont St., Boston, Mass., has prepared plans for increasing the water supply. The work will include the tapping of the Ipswich River, building a small pumping station, three miles of pipe to Wenham lake and sand filtration of the water before admitting it into the lake. Estimated cost, $100,000. David N. Cook, is Supt. Water Dept.

*FORT TERRY, N. Y.—Bids will be received until 11 a. m., Feb. 28, by Capt. F. T. Arnold, Constr. Q. M., U. S. A., New London, Conn, for the construction of a reinforced concrete reservoir and extension to the water main at Fort Terry

BALTIMORE, MD.—The Water Board will soon ask for bids for a new triple expansion vertical pump for the Mount Royal station.

NEW YORK, N. Y.—Henry H. Thompson, Comr. Water Supply, Gas and Electricity, has asked the Board of Estimate for an appropriation of $6,500,000, for the installation of a filtration plant for the Croton system.

NEW YORK, N. Y.—Bids will be received until 2 p. m., Feb. 10, by Henry S. Thompson, Comr. Water Supply, Gas & Electricity, for furnishing and delivering six portable recording meters; chloride of lime, and for furnishing and erecting iron and wooden fencing at pumping station of No. 3, in the First Ward, Boro. of Queens.

BAYONNE, N. J.—Bids will be received until 8 p. m., Feb. 7, by the City Council for all the labor and material required for the construction of a water-line under a portion of the Hudson Boulevard. S. J. Harwi is City Surv.

CRANFORD, N. J.—James H. Fuertes, Consulting Engr., 140 Nassau St., New York, is preparing preliminary plans for the construction of system of water works for the borough. A pumping station will be built.

PITTSBURG, PA.—Bids were opened on Jan. 17, by the city for furnishing and erecting two pumping engines as follows: For a 1,000,000 gallon pumping engine and appurtenances in Lincoln Pumping Station. Carpenter Company, $4,985; Snow Pump Co., $6,500, Wilson-Snyder Co., $4,650; Hall Steam Pump Co., $5,110; for a 6,000,000 gallon pumping engine and appurtenances for Herron Hill Pumping Station; Halley Mfg. Co., $56,000; Wilson-Snyder Mfg. Co., 2 Ross St., Pittsburg, Pa., $36,580; William Todd Co., $48,500; Allis-Chalmers Co., $44,967; Bethlehem Steel Co., $47,769.

SPRINGFIELD, PA.—The Borough Council is arranging for the construction of a municipal water supply system. Estimated cost, $50,000.

TARENTUM, PA.—Plans are being prepared by the village for the erection of a municipal water-works system. A $100,000 bond issue will be made.

WEST TELFORD, PA.—Bids will be received until April 1, by the Telford Water Co., H. Z. Wampole, Secy., for the construction of water-works. Estimated cost, $30,000.

BALTIMORE, MD.—We are officially advised that contract will be awarded some time in April for the construction of the dam at Lock Raven. Noted on Jan. 26. Alfred M. Quick is Water Engr., Baltimore.

NORFOLK, VA.—The City Council on Jan. 10 passed an ordinance providing for an appropriation of $50,000 for the purchase of water meters. A report from the Water Supply Commission providing that the Council appropriate $50,000 annually until the meter system shall have been fully completed was adopted.

ROCK HILL, S. C.—The city has retained Thomas W. Cothan, Greenwood, S. C., to prepare plans and make surveys for the construction of water-works and sewerage plants. Estimated cost, $250,000; B. Parks Rucker, Charlotte, N. C., is Consult Engr. Plans will be ready in about 30 days.

DALTON, GA.—Bids will be received until Feb. 16 by the city for the construction of water-works of 2,000,000 gallons capacity. Estimated cost, $30,000. H. S. Jaudon, Savannah, Ga., is Consult Engr.

DOERUN, GA.—The city has voted $6,500 of bonds for improvements to the water-works.

FAIRBURN, GA.—The citizens on Jan. 14 voted to issue $20,000 of bonds for the construction of water works. W. B. Green is City Clk.

GAINESVILLE, GA.—Bids will be received until Feb. 15, by the city for improvements to the water works and sewer system. Estimated cost, $100,000. J. H. White is City Clk.

KIRKWOOD, GA.—Bids will be received until Feb. 6 by Hazelhurst & Anderson, Engrs., 532 Candler Bldg., Atlanta, Ga., for material and machinery required in the construction of water and sewer systems. M. D. Thompson, is Chn. Water Com.

WAYCROSS, GA.—The City Council has adopted plans for the extension of the water and sewer system through Gilchrist Park. Estimated cost, about $7,000.

GADSEN, ALA.—The city is considering the extension of the water mains.

MANY, LA.—The city is planning the construction of water-works, electric lighting plant and an ice factory.

JOHNSON CITY, TENN.—The City Council is considering plans for the construction of the proposed system of water-works. Estimated cost, $500,000. T. Chalkley Hatton, Wilmington, is Engr.

COSHOCTON, OHIO.—Bids will be received until Feb. 21, by the city for a 4,000,000-gallon pumping engine and two centrifugal pumping units of 15,000,000 gallons capacity per day for the Water-Works Department.

LONDON, OHIO.—We are officially advised that the Riggs & Sherman Co. The Nasby, Toledo, has been selected by the city of London, to represent the city in the forthcoming valuation of the plant of the London Water Co.

SPRINGFIELD, OHIO.—The Superintendant of the Water Works Department, has recommended the completion of the water works system, the consideration of the installation of a new 15,000,000 gallon pump; and laying a new 20-in. main from the new to the old pumping station.

YOUNGSTOWN, OHIO.—The Worthington Co. has submitted the lowest bid to the city for furnishing water meters at $7.60 each.

BEDFORD, IND.—The City Council has ordered plans on which to ask for bids for the installation of a modern electric pumping system at the city water-works plant. W. L. Hurd, Indianapolis is Engr.

VALPARAISO, IND.—The City Council is considering the installation of a modern filtration plant north of the water-works pumping station.

GRAND RAPIDS, MICH.—We are officially advised that bids were received as follows on Jan. 19 by the Board of Public Works for Filtration Plant, Contract 4, buildings, filters and equipment: Engineer's estimate, $165,000. ROBERTS FILTER MFG. CO., Darby, Philadelphia, Pa., $159,382 (awarded contract) American Water Softener Co., Philadelphia, $163,323. Carpenter & Adams, Grand Rapids, $168,373; Fred T. Ley & Co., Springfield, Mass., $172,373; Pittsburg Filter Mfg. Co., Pittsburg, Pa., $176,662; New York Continental Jewell Filtration Co., New York, $178,929; Norwood Engineering Co., Florence, Mass., $182,430; Hering & Fuller, 170 Broadway, New York, are Consult. Engrs.

CHICAGO, ILL.—Bids will be received at the office of B. J. Mullaney, Comr. Pub. Wks., until Feb. 11, for furnishing and installing in place two 20,000,000-gallon centrifugal pumps and two 1,000-HP. synchronous electric motors together with piping, wiring, switchboard and other appurtenances at the 22d St. pumping station. This is a postponement from Jan. 27.

HERRIN, ILL.—Bids will be received about April 1 for the construction of a reservoir. Estimated cost, about $75,000. R. L. Adams, of Herrin is Engr.

LA SALLE, ILL.—CHARLEY BROS., La Salle, have been awarded the contract by the city for the construction of a water supply well at $5,200. Bids were opened on Jan. 9, by Joseph Burkhart, Jr., City Clk.

MADISON, WIS.—The Board of Water Commissioners has awarded the contract for furnishing and installing two horizontal pumps in the city pumping station to the FRED. M. PRESCOTT STEAM PUMP CO., of Milwaukee, Wis. One pump will have 3,000,000 gallons and the other 1,500,000 gallons. Cost, $15,000. John Helm, is Supt., C. F. Icke is City Engr.

MARYSVILLE, WIS.—The city is considering the construction of a water-works system.

CLINTON, IOWA.—The contract for laying the mains for the Northwestern Railway's new water-works system in Clinton has been awarded to KEERL & STEVENS, Mason City. The contract calls for laying 5,200 ft. of 14-in. mains.

MADISON LAKE, MINN.—Bids will be received until Feb. 6, by the Village Council for drilling an 8-in. well approximately 200 to 300 ft. John Wilson is Engr., Mankato.

MINNEAPOLIS, MINN.—Bids will be received until Feb. 10 by Henry N. Knott, City Clk., for furnishing for use in the construction of water mains during the year 1911, c.-i. pipe, hydrants, valves and special castings, and for furnishing for use in the Water-Works Department two 30-in. meter tubes for measuring water pumps by the two 20,000,000-gallon centrifugal pumps.

ALTOONA, KAN.—The J. S. Worley Co., Consult. Engrs., Reliance Bldg., Kansas City, Mo., are preparing plans for the construction of a system of water works here.

COLDWATER, KAN.—Plans are being prepared by J. S. Worley Co., Reliance Bldg., Kansas City, Mo., for a system of water-works and an electric light plant here. Estimated cost, $30,000.

LA CYGNE, KAN.—The J. S. Worley Co., Consult. Engrs., Reliance Bldg., Kansas City, Mo., are preparing preliminary plans for the construction of a system of water-works and electric light here. Estimated cost, $30,000.

LODGEPOLE, NEB.—The city has voted to erect a municipal water plant. Bonds for $10,000, will be issued.

LOUISVILLE, NEB.—Bids will be received about Mar. 1 for the construction of water-works. Estimated cost about $16,000. D. K. Barr, is City Clk.

TRENTON, NEB.—P. A. STRAYER, has been awarded the contract for laying the pipe for the Trenton water-works system.

SUPERIOR, NEB.—The contract for constructing extensions to the water-works, bids opened on Jan. 6, has been let to the NATIONAL CO., South Bend, Ind., at $15,200.

HURON, S. DAK.—Bids will be received by C. F. Koepp, Mayor, until 6 p. m., Feb. 6, for the proposed improvements to the water-works system, according to plans prepared by L. P. Wolf, 204 Essex Bldg., St. Paul, Minn. A 750,000-gallon concrete reservoir, steel tower and tank, and complete pumping plant with steam or oil engine and gas producer are included. Estimated cost, $40,000.

FARGO, N. DAK.—Bids will be received in about three months for the construction of the proposed filtration plant in Island Park. Estimated cost, about $125,000. E. R. Orchard, is City Audr.

SHERIDAN, WYO.—Bids will be received by the city until 3 p. m., March 6, for constructing a water supply main, about 7,934 ft. of 14-in. and 760 ft. of 10-in. c.-i. pipe. Arnold Tchirgi, is City Engr.

TROY, MONT.—Bids will probably be received in August for the construction of the proposed water-works and electric light plant. Estimated cost, about $35,000. Robert Gregg, of Troy, is Engr.

KANSAS CITY, MO.—Bids were received by the Board of Fire and Water Commissioners, E. B. Harrington, Secy., on Jan. 26 for the construction, delivery and erection of a horizontal shaft centrifugal pump, direct-connected to a vertical cross-compound engine, of a capacity to deliver 30,000,000 gallons of water, 50 ft. high, at a speed not exceeding 150 r. p. m. We are officially advised that the contract has been awarded to the ALLIS-CHALMERS CO., Milwaukee, Wis., at $21,036, for one unit, and $42,072 for two units. The contract for furnishing 2,000 tons of pipe and specials has been awarded to the U. S. CAST IRON PIPE & FOUNDRY CO., at $23.80 per ton for pipe and $50 per ton for specials.

BLYTHEVILLE, ARK.—J. E. Thompson, 241 North Fourth Ave., Nashville, Tenn., will construct water-works here, of 500,000 gallons capacity, to include a pumping station to cost $2,000; two steel towers 125 ft. with 75,000-gallon tank, and one 40 ft., with 40,000-gallon tank, electric and coal oil engine. Total cost, $60,000.

ROSCOE, TEX.—On Jan. 19 the city voted to issue $7,500 of bonds for the construction of water-works.

FORT WORTH, TEX.—The contract has been awarded by the city to the A. M. LOCKETT CO., New Orleans, La., for furnishing to the city a 5,000,000-gallon pump, at $9,100. Contract for a 500-HP. boiler has been let to the HARRY PENNINGTON ENGINEERING CO., New Orleans, at $5,860.

DELAWARE, OKLA.—The City Council has let the contract for the construction of the water works system to F. R. STONE, Lima, Ohio, at about $21,000.

DUNCAN, OKLA.—The citizens on Jan. 10 voted to issue bonds for $12,000 for the extension of water-works.

HEAVENER, OKLA.—The city has awarded the contract to the T. C. BROOKS & SONS CO., Jackson, Mich., at $40,699, for constructing the water-works.

MUSKOGEE, OKLA.—Alexander Potter, Consult. Engr., 114 Liberty St., New York, has submitted his report to the City Council estimating cost of the water supply plant at $390,000.

GREEN RIVER, UTAH.—Bids will be received until Mar. 1, by the Board of Directors of Green River Irrigation District, Green River, J. E. Ingels, Secy., for completing the dam across Green River, a part of which has been constructed, and widening and deepening the raceway from the head gates to the intake; also for constructing and installing a pumping plant to lift water from the raceway to the 90-ft. canal and completion of the 90-ft. canal.

CARSON CITY, NEV.—Notice of the approval by the Secretary of the Interior of the application for 8,857 acres of land in Clark County, Nev., to be reclaimed under the Carey Act, has been received by the Surveyor General. The application was made by the Las Vegas Irrigated Fruit Lands Co., and is located in Las Vegas Valley. This is the first segregation of land under the Carey Act to be reclaimed by the use of artesian wells. There are five more lists embracing about 25,000 acres of land to be reclaimed under the same plan.

BOISE, IDAHO.—Work will be started at once on the construction of a dam, 35 miles northeast of here, by the Reclamation Service. It will be 318 ft. high, and will cost $5,159,000. F. W. Hanna is Project Engr.

DOUGLAS, ARIZ.—The contract for the construction of the municipal water system has been awarded to M. F. DISCUS of Douglas, by the Board of Water Commissioners, at $45,000. The work includes the construction of the building, laying of pipe, and the reservoirs. The CHICAGO BRIDGE & IRON WORKS, secured the contract for the water tower, and the power equipment, will be installed by the DE LA VERGNE MACHINERY CO. The bids received follows: M. F. Discus, $4,450, for the pump house complete; concrete sump, oil reservoir and well tunnels, $980; 10-in. 70-lb. pipe, $1.63 per ft.; 10-in. 64-lb. pipe, $1.47 per ft.; 8-in., 47-lb. pipe, $1.12 per ft.; 10-in. gate valves, $42,60 each; 8-in. gate valves, $33,40 each; 5-in. hydrants, $44.50 each; 4-in. hydrants, $39,50 each. The Chicago Bridge & Iron Works, water tower, $11,950; The Denver Rock Drill & Mfg. Co., pumping equipment, $8,510; Simplex Venturi Meter, $572; The De La Vergne Machinery Co., machinery $19,945.

ASOTIN, WASH.—Surveys are being made for the construction of water-works here.

COLVILLE, WASH.—Bids will be received until Feb. 21 by the City Clerk for furnishing f. o. b. Colville 3,200 ft. of 10-in. wood pipe and a quantity of wrapped copper wire.

SEATTLE, WASH.—Bids will be received by C. B. Bagley, Secy. Bd. Pub. Wks., until 10 a. m., Feb. 3, for the improvement of portion of 25th Ave., from East 54th St. to East 60th St., by the construction of water mains.

SUNNYSIDE, WASH.—The Secretary of the Interior, Washington, D. C., has awarded the following contracts in connection with the Sunnyside unit of the Yakima Irrigation project, Wash.: To D. S. WILSON, Mabton, Wash., for the construction of about eight miles of open canal and 7,000 lin. ft. of pipe trench, involving the excavation of 146,000 cu. yds. of material, in connection with the Mabton Division; same contract or for construction of about three miles of open canal and 21,000 ft. of trench, involving about 15,200 cu. yds. of excavation, in connection with the Snipes Mountain Division, to the CHAMBERLAIN CONSTRUCTION CO., Seattle, for 21,000 ft. of wood stave pipe and about 150 M ft. lumber in measuring boxes, turnouts, etc., for the Snipes Mountain Division, at $14,078; GEORGE F. VARNUM, Mabton, Wash., for 7,000 ft. of wood pipe, and about 71 M ft. lumber in measuring boxes, turnouts, etc., also for the Mabton Division, at $5,333.

TACOMA, WASH.—Bids will be received by Nicholas Lawson, Comr. of Light & Water, until 2 p. m., Feb. 6, for the completion of the Nisqually reservoir, conduit, etc.

ASTORIA, ORE.—We are officially advised that the contract was awarded by the city on Jan. 26 to PALMBERG & MATTSON, Astoria, for constructing 7½ miles of 18-in. redwood stave pipe, with appurtenances, at $68,117.

PORTLAND, ORE.—The U. S. CAST IRON PIPE & FOUNDRY CO., Chicago, Ill., has been awarded the contract by the Water Board, for furnishing the city with 5,792 tons of c.-i. pipe from 6 to 30-in. diameter at $178,972.

The PHOENIX IRON WORKS, Portland, has been awarded the contract by the Water Board for furnishing 400,000 lbs. of special castings for water pipe at $9,600, to be used in extending the Bull Run water service to district which do not now have city water, and to reinforce the mains in those districts which now have an inadequate water supply. The board will lay the reinforcing system to supply Sellwood and contiguous districts first. It will consist of a 16-in. main in East 26th St., from the main in Division St. to Holgate, a 10-in. main will be laid in Milwaukee Ave., to tie into the present 10-in. main running to Sellwood. The 16-in. main will be also extended south in 26th St. from Holgate to connect with the system of Westmoreland, and utilmately will be laid as far out as Eastmoreland, so as to supply the Reed Institute and vicinity. Estimated cost, $45,000.

GLENDORA, CAL.—S. F. CATY, of Los Angeles, Cal., has been awarded a contract by the Directors of the Glendora Mutual Water Co., to sink a 26-in. well on the company's property. The contract provides for 600 ft. if necessary. A modern deep well pump will be installed. The directors have voted $15,000 for the work.

LORDSBURG, CAL.—The Board of Trustees opened 21 bids on Jan 19, for the construction of additions to the municipal water system. The lowest bid received was that of Braun & Russell, of Redondo Beach, at $35,000 for all work and $37,054 if the 8-in.w.-i. pipe is changed to c.-i. pipe and surface reservoir added. The board is considering changing the 4-in. pipe to c.-i. and adding 62 extra hydrants, which will bring the cost to $42,000. Olmsted & Gillelen are Engrs., Wright & Callender Bldg., Los Angeles, Cal.

MADERA, CAL.—Bids will be received by the city until 8 p. m., Feb. 20, for the construction of a water system.

MONROVIA, CAL.—The City Board of Trustees will receive bids until Feb. 6 for making extensions to the municipal water system. Bids will be received for furnishing all labor and material, for material only and for labor only. Estimated cost, $30,000.

PASADENA, CAL.—We are officially advised that the Pasadena Land & Water Co., will cover the 4,000,000-gallon reservoir now being built, probably with its own forces. The Rubio Canyon Land & Water Association will line and cover a 4,000,000-gallon reservoir in the spring. Allin Bros., Engineering Co., 203 Randall Bldg., Pasadena.

REDLANDS, CAL.—Bids are being asked by the Bear Valley Mutual Water Co., 14 West Citrus Ave., for supplying pipe and constructing a water system in the Crafton Hills. Estimated cost $25,000.

REDLANDS, CAL.—The Redlands & Yucaipa Land Co., has awarded contract to J. B. WARD & CO., for excavating 15 miles of ditch for water system. F. C. Finkle, Los Angeles, is Engr.

REDONDO, CAL.—The Redondo Water Co., will expend $25,000 in extensions to its water system, here. The company will lay 2½ miles of c.-i. pipe in Guadalope, Vincent & Emerald Sts. The company is also contemplating the construction of a 2,000,000 reservoir soon.

TURLOCK, CAL.—Bids will be received by A. G. Elmore, City Clk., until 7.30 p. m., Feb. 7, for furnishing materials and labor together with all appliances and accessories for the construction of an extension of the present water system, in accordance with plans and specifications on file with the clerk.

VALLEJO, CAL.—Bids were received by the Board of Public Works on Jan. 23, for furnishing 1,120 pieces of c.-i. bell and spigot water pipe 14 ins. internal diameter, 12 ft. long, 66 ins. thick, and 340 pieces c.-i. bell and spigot water pipe 8-in. internal diameter, 12 ft. long, 51 ins. thick with necessary fittings for the Water Department. We are officially advised that the contract has been awarded to the U. S. CAST IRON PIPE & FOUNDRY CO., San Francisco, at $24,587. Christian Graelich submitted the only other bid at $25,780.

OTTAWA, ONT.—Bids will be received until 4 p. m., Feb. 14, addressed to the Chairman Water-Works Committee, City Hall, for the supply and delivery of brasswork, special pipe castings, hydrants, c.-i. pipe, lead pipe and pig lead, valves, oil or grease. Specifications from Newton J. Ker, City Engr.

PEMBROKE, ONT.—Bids will be received until Feb. 13, addressed to E. A. Dunlop, Ch. Water Committee, for supplying all the necessary labor, etc., in connection with laying 5,400 ft. of 18-in. lapwelded steel intake pipe and the construction of a concrete pump well; also for laying and jointing 5,900 ft. of 16-in. water main. Plans from T. Aird Murray, Consult. Engr., Lumsden Bldg., Toronto, Ont., or J. L. Armour, Res. Engr., Pembroke.

BRANDON, MAN.—Bids addressed to the City Clerk will be received until noon, Feb. 3, for from 10,000 ft. to 20,000 ft. of 6-in. and 4-in. pipe, the 6-in. pipe to be 30 lbs. per ft. and 4-in. pipe 20 lbs. per ft., which must be tested to hydrostatic pressure of 300 lbs.; 5,000 ft. to be delivered by April 15, and the balance not later than June 1, next. Specifications may be had from R. E. Speakman, City Engr.

WINNEPEG, MAN.—Bids will be received by M. Peterson, Secy. Bd. of Control, until 11 a. m., Feb. 3, for the supply of a quantity of brass goods for the water-works departments. H. H. Ruttan, is City Engr.

SEWERS.

(**Denotes that this work is advertised in Engineering News.*)

FITCHBURG, MASS.—The installation of a trunk sewer is proposed. The estimated cost is about $1,000,000. Timothy J. Sheehan is City Engr.

ANSONIA, CONN.—It is reported that brick sewer to the river will be constructed here. The estimated cost is about $30,000.

HASTINGS, N. Y.—Bids will be received until Feb. 24, by the Board of Trustees, for the construction of sewers in Warburton Ave. and Farragut Road and various other streets. Noted Jan. 5.

SOLVAY, N. Y.—Bids will be received by E. M. Hall, Village Clk., until Jan. 31, for installing a tile sewer.

YORKVILLE, N. Y.—Bids will be received until Feb. 9 by W. Armstrong, Clk. Trustees, for construction of a sanitary sewer system, including disposal plant. W. G. Stone, Utica, is Engr.

FAR ROCKAWAY, N. Y.—The construction of a sewer system for this place is under consideration. A petition for such a sewer has been presented to the Local Board.

NEW YORK, N. Y.—Bids will be received until noon Feb. 15 by the Pres. of the Boro. of Richmond, for furnishing all the labor and materials required for the construction, under the jurisdiction of the President of the Boro. of Richmond, of a sanitary sewer trunk line from the pier[illegible] line at the foot of Nicholas Ave. to [illegible]mond Turnpike and willow Brook R[illegible] from that point to the New York C[illegible]arm Colony Road, at its intersection w[illegible] Port Rich[illegible] mon Road, for the exclu[illegible] of the In[illegible]stitutions of the Departm[illegible]ublic Charities.

CORONA, N. Y.—A trunk [illegible] system will be installed here. The [illegible] Men and Taxpayer Assn., is interes[illegible]

SYRACUSE, N. Y.—The fo[illegible] bids have been received on Jan 26 by [illegible]yracuse Intercepting Sewer Board for [illegible]nstruction of the Harbor Brook in[illegible] sewer. As received, there were t[illegible]rnatives, that is, the work is to be [illegible]n two divisions. One is north of Er[illegible] and the other on the south side ther[illegible] third alternative being for both div[illegible] one bid. Alternative No. 1, John Y[illegible]ontracting Co., Syracuse, N. Y., $88,12[illegible] HOOKWAY, Syracuse, N. Y., $92,2[illegible] Gaffey & Byrnes, Syracuse, N. Y., $[illegible] Ryan & Reilly, Philadelphia, Pa., $1[illegible] Alternative No. 2, C. T. Hook[illegible] Syracuse, N. Y., $101,014; John Young [illegible]ting Co., Syracuse, N. Y., $103,238; [illegible]el Bonn[illegible] Syracuse, N. Y., $109,147; [illegible] & Reilly, Philadelphia, Pa., $141,282. [illegible]native No. 3, John Young Contracting C[illegible]488. The contract has been awarded t[illegible] HOOKWAY, at $101,014. Harry [illegible]Hamlin is Secy. of the Bd.

HASBROUCK HEIGHTS, N[illegible] A preliminary survey has been made f[illegible] proposed sewer system. A. C. Austin [illegible]yor.

PATERSON, N. J.—H. J. H[illegible] has completed plans for a sewer sys[illegible] the Totowa and West Paterson se[illegible] of city, which will probably be constru[illegible] this year. The cost is about $60,000.

CHARLEROI, PA.—The con[illegible]tion of a sewer system is being conte[illegible]d by the Boroughs of Charleroi, North Charleroi and Clairton.

UNIONTOWN, PA.—Plans and specifications for the construction of a $150,000 sewage plant were presented to Council by J. B. Hogg.

NEW KENSINGTON, PA.—Plans are being prepared in the boroughs of New Kensington, Parnassus and Arnold to comply with the order of the Board of Health to construct a sewage disposal plant to prevent pollution of the Allegheny River. A committee has been appointed to prepare plans.

PHILADELPHIA, PA.—Bids will be received by George R. Stearns, Dir. Dept. Pub. Wks., Bureau of Highways, until Feb. 2 for installing sewers in Jefferson St.

HUNTINGTON, W. VA.—Bids will be received Feb. 20, for the construction of a lateral sewer in Adams Ave. from 13th to 15th St., and in 15th St. from Adams Ave. to alley between Washington and Virginia Aves.; also in alley between Washington and Virginia Aves. from 15th to 18th St., and in alley between Washington and Adams Aves. from 15th to 18th St.

DURHAM, N. C.—It is reported that the city has petitioned for authority to issue bonds to the amount of $300,000 for sewer construction, erection of disposal plant and improvements to streets and sidewalks.

WILSON, N. C.—Bids will be received by the Board of Commissioners until Feb. 15 for construction of brick storm sewer from 1,000 ft. to 2,000 ft. long, 30 to 48-in. Plans and specifications in office of Town Clk.; T. A. Hinnant is Clk. of the Board.

WILMINGTON, N. C.—Plans for a sewer system have been presented by Sewerage Comn. to the State Bd. of Health for a sewer system. The estimated cost is about $140,000.

ROCK HILL, S. C.—W. Cothan, Greenwood, S. C., has been retained by the city to make surveys for sewerage and water-works plans and prepare plans. B. Parks Rucker, Charlotte, N. C., is consulting engineer. The estimated cost is $250,000.

SARASOTA, FLA.—It is reported that the city council voted to issue bonds for installation of sewer system.

MOBILE, ALA.—Bids will be received by the Board of Public Works until noon, Feb. 16, for the construction of approximately 300 lin. ft. 3 × 5 ft. concrete culvert, 1,000 lin. ft. of 10-in. vitrified sewer pipe and 8 standard inlets. J. T. Schley is Pres.

DECATUR, ALA.—Storm sewers will be installed here at an estimated cost of about $17,000.

CULLMAN, ALA.—The Cullman Board has decided to install a sewerage system here.

ATTILLA, ALA.—City will open bids soon for installation of sewer system; a $30,000 bond issue has been authorized.

LOUISVILLE, KY.—Bids have been received as follows, by the Commissioners of Sewerage, 605 Equitable Bldg., Jan. 20, for the installation of a sewer known as the Second St. sewer: James Ferry & Sons, Pittsburg, Pa., $31,161; Henry Bickel Co., Louisville, Ky., $32,541; C. T. McCracken & Co., Columbus, Ohio, $32,792; L. W. Hancock Co., Louisville, Ky., $33,240; B. C. Milner & Sons Co., Louisville, Ky., $47,274; H. P. Eddy, 14 Beacon St., Boston, Mass., is Const. Engr.

CINCINNATI, OHIO.—A sewerage disposal system to cost about $150,000 is planned at Pleasant Ridge. James E. Stewart, Vil. Engr.

CINCINNATI, OHIO.—Bids will be received until noon, Feb. 6, by the Director of Public Service, City Hall, for the construction of main and lateral sewers and drains with their appurtenances in Knox St., from Beekman St. to Pine St. Plans and specifications may be obtained at the office of the Ch. Engr. of Dept. of Public Service. John J. Wenner is Clk.

CLEVELAND, OHIO.—Bids will be received at the office of the director of public service room 104, City Hall, until noon, Feb. 9, for the construction of sewers in the following Sts. and Aves.: Barberton Ave. S. W., between W. 67th St. and W. 61st St.; Denison Ave. S. W., between Lorain Ave. and

W. 98th St.; W. 65th St., between 350 ft. north of Denison Ave. S. W., and Barberton Ave. S. W.; Carr Ave. N. E., between E. 93d St. and E. 96th St.; Castlewood Ave., N. E., between Lakeview rd. N. E., and E. 125th St.; Eddy rd. N. E., between St. Clair Ave. N. E. and Woodside Ave. N. E.; E. 93d St., between St. Clair Ave. N. E. and Carr Ave. N. E.; that part of W. 25th St., between Trowbridge Ave. S. W. and Bradwell Ave. S. W., with an outlet through Trowbridge Ave. S. W. to W. 30th St., which lies between Trowbridge Ave. S. W. and Library Ave. S. W., with an outlet through Trowbridge Ave. S. W. to W. 30th St. Plans and specifications may be seen at the office of the City Engineer, room 305, City Hall. A. B. Lea is Dir. of Pub. Serv.

LORAIN, OHIO.—The contract for the construction of a storm water sewer in Dallas Ave. has been awarded to FARGER & RANDALL at $47,370. Other bidders were: J. C[illegible]an, $55,200 and M. J. Burke, $65,500. Bids were opened Jan. 27.

CLEVELAND HEIGHTS (Cleveland P. O.), OHIO.—Bids will be received until noon, Feb. 28, by H. H. Canfield, Vil. Clk., Town Hall, for the construction of sewers in part of the Mayfield District No. 1. Plans at A. Pease Engineering Co., 932 Williamson Bldg., Cleveland.

CINCINNATI, OHIO.—Bids will be received by the Board of Park Commissioners until noon, Feb. 2, for the installation of a sewer in Burnet Woods. Plans at office of Board. M. C. Longnecker is Secy.

KOKOMO, IND.—Bids will probably be received in April for sewer construction, at an estimated cost of $50,000. Jackson Morrow, Kokomo, is Engr.

MANISTEE, MICH.—Sewers will probably be installed in the following streets: On Eighth St. from Cedar to Cypress with laterals on Elm, Spruce and Pine; on 2d Ave., between Elm and Spruce; on Seventh and Davis Sts. from Eighth to Hopkins, the same being a lateral sewer; on Bryant Ave. from Locust to Spruce and on Elm from Bryant to Seventh. Engineer Pike is interested.

CASSAPOLIS, MICH.—The village of Cassapolis will issue bonds to the amount of $[illegible] for the installation of a sewer system.

MOMENCE, ILL.—The following bids have been received by the city on Jan. 14, for the construction of sewer work: Kinney & Vineyard, Evansville, Ind., $30,862; Langen & Clifford, Waukegan, Ill., $34,830; A. C. Schrieter, Manitowac, Wis., 38,161; William Moran & Co., Joliet, Ill., $40,357; Henry McPine & Co., Kankakee, $41,526; Henry McMullin, Kankakee, $43,572; Union Engineering Co., Chicago, Ill., $45,792. H. D. Hallett is Engr.

*PARIS, ILL.—Bids will be received by Granville Jenkins, Chn. of the Sewer Committee of the City of Paris, Ill., at the office of the City Engineer until 2.30 p. m., Feb. 23, for the furnishing and laying complete the following approximate quantities: 710 ft. of 36-in. and 3,834 ft. of 60-in. reinforced-concrete or brick sewer. Average cut will be 7 ft. Plans and specifications may be secured at the office of the City Engineer. C. P. Lycan is City Engr.

ANTIGO, WIS.—W. H. Kirchhoffer, Madison, Wis., Civil Engineer, is completing plans and specifications for a sewerage system to include the following intercepting sewers: $20,000; inlet and outlet sewer, $500; 2½ acres filter beds, $12,500; automatic controlling apparatus for filter beds, $1,500; settling, byrolitic and sludge tanks, $8,500; screening and grit chamber, $6,200, engineering, $2,500. Total $51,500.

MOUNT VERNON, IOWA.—Bids will be received by the City of Mt. Vernon, until Feb. 21 for installation of 7 1-3 miles of sanitary sewers 6 to 15-in. pipe with necessary accessories, a septic tank and filter beds. Wm. Gamble is Town Clk. Iowa Engineering Co., Clinton, Iowa is the Engr.

NEVADA, IOWA.—Samuel Steigerwalt, Boone, is preparing plans and specifications for the construction of a sanitary sewer system. The work will soon be advertised.

CLARINDA, IOWA.—Bids will be received until Feb. 21 by C. W. Stuart, City Clk., for the construction of about 1 mile of 6-in sanitary sewer.

LOGAN, IOWA.—It is reported that the Business Men's Ass'n. have appointed a committee to investigate the question of constructing a sewer system in Logan.

*SIGOURNEY, IOWA.—Bids will be received by the Town of Sigourney until 7.30 p. m., Feb. 14, for the construction of a septic sewage system, the same will consist of 49,505 ft. vitrified sewer pipe three disposal plants, 41 flush tanks, 111 manholes, 8 lamp holes, and 3 disposal plants. The cost of system is covered by a bond issue and work will be paid for in cash. Further information will be furnished on application to Mayor or A. M. Neas, Town Clk.

MINNEAPOLIS, MINN.—Henry C. Knott, City Clk., will receive bids until Feb. 10, for furnishing materials for sewer construction during the year 1911.

ST. PAUL, MINN.—Bids will be received by the board of public works until 2 p. m., Feb. 6, for sewers on York St., St. Anthony Ave. and Western Ave.; grading on Curfew St. and Doswell Ave., and macadamizing Linwood Pl.

LAWRENCE, KAN.—Bids will be received by F. D. Brooks, City Clk., until Feb 6, for constructing an 8-in. lateral sewer in Lawrence.

DELL RAPIDS, S. DAK.—Bids will be received until 7.30 p. m., Feb. 15, by the City Board of Commissioners, at office of Oluf Hegge, Cy. Audr., for the installation of lateral and connecting sewers and main and trunk sewers. Plans may be seen at office of Board. A. Huntemer is Mayor.

DICKINSON, N. DAK.—Bids will be received until 10 a. m., Feb. 7, by the Board of Commissioners of Stark County for metal culverts. J. S. Hughes is Co. Audr.

GLASGOW, MO.—Plans are being prepared by Burns & McDonnell, Kansas City, Mo., for extensions to sewer system and waterworks; including installation of new machinery, filtration settling basins, main extension and sewers. The estimated cost is about $21,000.

RECTOR, ARK.—Bids will be received by the Commissioners of Drainage, District No. 8, Clay County, Ark., until Mar. 16, for the construction of an extensive drainage system, including 24 miles of main ditch and 30 miles of laterals. J. D. Mitchell, Rector, Ark., is Chief Engr.

MUSKOGEE, OKLA.—Bids will be received by Chas. Wheeler, City Clk., until Feb. 6, for installing sanitary sewers in Dists. Nos. 42, 45, 46, 47, 49, 50 and 51.

FT. MORGAN, COLO.—Bids will be received about Mar. 15 for the construction of pipe sewers, concrete for manholes and flush tanks. The estimated cost is about $6,500. H. R. Oliver is City Engr.

DEMING, N. MEX.—The people of this place have voted bonds to the amount of $35,000 for the construction of a complete sewer system.

TOPPENISH, WASH.—Bids will be received by W. H. Hassig, City Clk., until 8 p. m., Feb. 6, for the construction of 15,000 ft. of 7 to 16-in. pipe sewer, 33 man holes and three flush tanks. D. R. Rodman is City Clk.

HOOD RIVER, ORE.—There will be constructed about 1½ miles of storm sewer in the paved district, about 3 miles of sanitary sewer, mainly 8-in., in the residence section, about one and a half miles of grading, macadam, curb, gutter and sidewalk, and no doubt cement sidewalk will be placed in the paved section where not already down. While no definite action in that regard has been taken it will no doubt be ordered that all wires shall be placed underground in the paved district, or at least provision made for them before the paving is put in place.

PORTLAND, ORE.—The city of Toppenish, Wash., will receive bids until Feb. 6, for the furnishing of all materials and labor for the construction of a sewer system. Approximate quantities 15,000 ft. of 8 to 16-in. pipe, 33 manholes, 3 flush tanks. Plans are on file with the City Engineer and City Clerk.

TURLOCK, CAL.—Bids will be received by A. G. Elmore, Clk., on behalf of the city of Turlock, until 7.30 p. m., Feb. 7, for furnishing materials and labor, together with all appliances and accessories for the construction of an extension to the present sewer system in and for the city of Turlock, county of Stanislaus. Plans and specifications on file with Clk.

SAN FRANCISCO, CAL.—Bids will be received by the Secretary of Richvale Co., until noon, Feb. 6, both for material used and labor necessary to construct a sewer system and septic tank. Plans and specifications on file with Secy. Cecil Hawley is Engr.

ANAHEIM, CAL.—The adopted plans for a sewer system here call for 18-miles of pipe, ranging in size from 6 to 14 ins. The plan is to run the sewers through the alleys and avoid the streets and private ways as much as possible. Forty-nine flush tanks will be provided for and all the sewers will be flushed and cleaned every twenty-four hours.

LOS ANGELES, CAL.—The City Engineer has prepared plans for storm sewers in portions of the following streets, avenues and boulevards. Bids for the construction work will be taken soon: Pico St., Wilton Pl., 18th St., 16th St., Washington St., Gramercy Pl., 20th St., 21st St., St. Andrews Pl., Arlington Pl., Western Ave., Westmoreland Blvd., Harvard Blvd., Lenox Ave., Roosevelt Ave., Normandie Ave., Dorchester Ave., Jasmine St., Manhattan Pl., Aves. 18, 19, 20, 21, 22, 23, 24, 25, 26 and Baranea St. and in the bed of the Los Angeles River. The storm sewers will be constructed of vitrified pipe, brick, and reinforced concrete pipe, ranging in size from 14 inches diameter to 5 ft. diam. The work also includes reguttering 23 sq. ft. of roadway on Pico St. and 3,300 sq. ft. of asphalt paving and 329 sq. ft. of vitrified block gutter, along with manholes, junction chambers, catch basins, tile inverts, etc.

CALEXICO, CAL.—I. B. Funk, Imperial, has completed plans for the sewer system, consisting of 14,200 ft. 6, 8, 10, 12 and 15-in. pipe sewers, 72 manholes, 10 lampholes, 10 flush tanks, and 2 concrete settling tanks.

HANFORD, CAL.—Plans have been adopted by the Town Council for the improvement to the sewer system to include extensions of 3 miles of sewers.

PASADENA, CAL.—It is reported that plans are being prepared by Cy. Engr. Van Norman for a sewer system for the west side, including an automatic pumping plant to raise sewage to the Orange Grove Ave. sewer.

FRESNO, CAL.—Bids will be received until Feb. 6, by the City Clerk, W. H. Ryan, for constructing a 6-in. vitrified sewer, in Mono St.

IMPERIAL, CAL.—Engineer A. L. Sonderegger, Central Bldg., Los Angeles, has been commissioned to prepare plans for an outfall sewer system for this place. Cost, estimated at $9,000.

MONROVIA, CAL.—The REINFORCED CONCRETE PIPE CO., Central Bldg., has secured the contract for 11,000 ft. of 24-in. concrete sewer pipe for the outfall sewer at Monrovia, Cal.

NORTH VANCOUVER, B. C.—The contract for constructing sewer system, has been awarded to MACDOWELL, GZOWSKI & CO., Vancouver, at $206,000.

PRINCE RUPERT, B. C.—Preliminary plans for the new sewerage system have been prepared. The work to be done this year will cost approximately $200,000. Alderman Lynch is interested.

GARBAGE DISPOSAL.

(*Denotes that this work is advertised in Engineering News.)*

BOSTON, MASS.—The following bids were received on Jan. 27 by Louis K. Rourke, Supt. of Sts., Dept. of Pub. Wks., for removing ashes in the East Boston District, and garbage in the West Roxbury District for one year beginning Feb. 1: East Boston District, A. de Stefano, $13,168; William Carr, $14,294; Charles Berman, $14,400; B. E. Grant, $15,200. West Roxbury District: Fred. W. King, $2,500; T. Walter Griffin, $3,000; William K. Kennelly, $3,480; Charles A. Blackman, $3,540; W. J. Glancy, $3,850.

JAMESTOWN, N. Y.—We are officially advised that bids will be asked about April 1 by the city for the disposal of garbage.

NEW YORK, N. Y.—The following were received on Jan. 19 by William H. Edwards, Comr. of Street Cleaning, for the completion of an abandoned contract for furnishing all labor and material for removal of snow and ice during the winter season as follows: Frank A. Paladino, 45 cts. per cu. yd.; Soraci Construction Co., 170 Broadway, 41 cts.; C. De Marco, 49 cts.

CUMBERLAND, MD.—The City Council has awarded the contract, it is reported, for garbage removal for one year to A. L. ELOSSER, of Cumberland, at $6,500.

COLUMBIA, S. C.—We are officially advised that the city is considering installing a garbage destructor. Tobin McNeal is City Engr.

ATLANTA, GA.—John C. West, 110 Irwin St., Atlanta, on Jan. 16, submitted a bid for disposing of the city's garbage and other yard trash to the Board of Health. Te proposed to collect and dispose of this material for a term of not less than five years at $153,852 per year, adding the sum of $10,000 to this amount for each year after the first year. This was the only bid received.

MUSKOGEE, OKLA.—The City Council has adopted the plans and specifications of Alexander Potter, 114 Liberty St., New York, for a garbage disposal plant. Estimated cost, $36,000.

VENICE, CAL.—The City Trustees are considering the construction of a new garbage incinerating plant. Estimated cost, $10,000.

CALGARY, ALTA.—The City Council is considering the installation of a fully modern garbage incinerator. E. W. A. Brook is Civic Health Officer.

STREETS AND ROADS.

BOSTON, MASS.—Bids will be received until Feb. 6 by the Metropolitan Park Commission, William B. de las Casas, Chn., for grading, filling and surfacing the Lynn Fells Parkway.

CHELSEA, MASS.—The city is considering a plan to pave Marginal St. at an estimated cost of $8,000. William E. McClintock is Chn. Bd. of Control.

*WESTFIELD, MASS.—Bids will be received by Oren E. Parks, Town Engr., until 2 p. m., Feb. 17, for laying granite block pavement on Elm St. Plans, specifications, etc., are on file at the office of the Town Engr.

NEW LONDON, CONN.—We are officially advised that the Common Council has voted to lay 30½ miles of granolithic sidewalks at an estimated cost of $150,000. Courtlandt R. Darron is Highway Comr.

BUFFALO, N. Y.—Bids will be received by the Department of Public Works, F. G. Ward, Comr., until 11 a. m., Feb. 3, for repaving various streets in the city.

CORNING, N. Y.—We are officially advised that bids will be received about April 1 for five blocks of brick paving at an estimated cost of $35,000. R. H. Canfield is City Engr.

*MADISON BARRACKS (Sacketts Harbor post-office), N. Y.—Bids will be received by the Constructing Quartermaster until 2 p. m., March 1, for constructing approximately 28,800 sq. ft. macadam road and 800 sq. ft. concrete walk.

*MINEOLA (L. I.), N. Y.—Bids will be received until 10.30 a. m., Feb. 20, for the construction and improvement of two county roads. William E. Luyster is Clk. of Bd. of Supervs. For details see advertisement in this issue.

NEW YORK, N. Y.—Bids will be received by the Park Board until 3 p. m., Feb. 9, for repairing pavements in the Boro. of Manhattan. Charles B. Stover is Pres. of Bd.

NEW YORK, N. Y.—Bids will be received by George McAneny, Pres. Boro. of Manhattan, until 2 p. m., Feb. 9, for maintaining asphalt pavements on various streets.

NEW YORK, N. Y.—We are officially advised that the contract for repairing the asphalt pavement along the North, East and Harlem Rivers, has been awarded to the SICILIAN ASPHALT PAVING CO., 41 Park Row, New York.

NEW YORK, N. Y.—Bids will be received by Alfred E. Steers, Pres. Boro. of Brooklyn, until 11 a. m., Feb. 15, for regulating, paving, grading, curbing and laying sidewalks on various streets in the Borough of Brooklyn.

NEW YORK, N. Y.—We are officially advised that the contract for repairing sheet-asphalt pavements in the Borough of Manhattan was awarded on Jan. 23 to the UVALDE ASPHALT CO., 1 Broadway, New York, at $266,800.

TROY, N. Y.—The estimated cost of paving Sixth Ave., from Rensselaer to Middleburgh St., is $7,930. Edmund J. Sweeney is City Clk.

ATLANTIC CITY, N. J.—Bids will be received until Feb. 27 for paving Pennsylvania and Albany Aves. E. D. Rightmire is City Engr.

BAYONNE, N. J.—We are officially advised that the city will advertise for bids some time this spring for paving, water lines and sewers, at an estimated cost of $200,000. William C. Hamilton is City Clk.

ELIZABETH, N. J.—Bids will be received by the City Council until 8.30 p. m., Feb. 15, for paving and repaving portions of various streets. N. K. Thompson is St. Comr.

MOUNT HOLLY, N. J.—We are officially advised that the contract for paving the road from Gardiner Corner through Atsion to the Atlantic County line has been awarded to HOWARD MATHIS, of New Gretna, N. J., at $10,435. The paving is to be of gravel, at $1.39 per cu. yd.

ERIE, PA.—Bids will be received by the city, F. Hanlon, City Clk., until 8 p. m., Feb. 13, for paving part of West 20th St.

MOUNT OLIVER, PA.—Bids will be received by the Boro. Council until 8.30 p. m., Feb. 6, for improving Middle and Goldbach Ways.

WILKES-BARRE, PA.—Bids will be received by F. H. Gates, City Clk., until noon, Feb. 10, for grading, curbing and paving portions of various streets.

ELIZABETH CITY, VA.—Bids will be received by the city until 3 p. m., Feb. 7, for constructing pavements on various streets.

HUNTINGTON, W. VA.—Bids will be received until 1 p. m., Feb. 20, for paving two alleys. John Coon is Comr. of Sts.

ELIZABETH CITY, N. C.—Bids will be received by the city until Feb. 7 for paving various streets. R. A. Calwin is City Engr.

ATLANTA, GA.—We are officially advised that bids will be received about April 1 for 4,400 lin. ft. wood block at an estimated cost of $40,000. R. M. Clayton is City Engr.

MACON, GA.—The City Council has awarded the contract for approximately twelve blocks of paving to the W. W. LASLEY CO.

TAMPA, FLA.—Bids will be received by the Hillsboro County Commissioners until Feb. 7 for paving with shell 1½ miles of road.

BIRMINGHAM, ALA.—Two contracts have been awarded to the ANDREWS ASPHALT PAVING CO. for paving certain of the city streets. The combined price is $19,642.

JACKSON, MISS.—Bids will be received by the Board of Supervisors of Hinds County until Feb. 6 for constructing public roads in the county. W. W. Downing is Clk.

AKRON, OHIO.—The contract for about five miles of street paving has been awarded to I. W. HATCH & SONS, of Goshen, Ind., at $85,000.

CINCINNATI, OHIO.—We are officially advised that the contract for improving Dayton Pike was awarded on Jan. 20 to WILLIAM P. FLYNN, at $5,634.

CINCINNATI, OHIO.—Bids will be received by the Board of County Commissioners, Fred Dreihs, Clk., until Feb. 21, for resurfacing Independence St. and for constructing a culvert and fill on Mt. Alverno Road. Plans and specifications are on file at the office of the County Commissioners.

CLEVELAND, OHIO.—Bids will be received by A. B. Lea, Dir. Pub. Ser., until noon, Feb. 10, for grading, curbing and paving the driveways along Wade Park and a roadway through University Circle. Plans are on file at the office of the Park Department, 214 City Hall.

COLUMBIANA, OHIO.—Bids will be received by Ernest Koch, City Clk., until Feb. 13, for paving and curbing a portion of Friend St.

DAYTON, OHIO.—We are officially advised that about 35 streets will be paved this spring and summer. F. J. Cellarius is City Engr.

DEFIANCE, OHIO.—Bids will be received until Feb. 20 for stoning 1½ miles of road, at an estimated cost of $5,000. Address the County Auditor.

MECHANICSBURG, OHIO.—The contract for grading and macadamizing one mile of road in Goshen Township has been awarded to HARVEY B. STEPHENS, of Mechanicsburg, at $7,363. The other bidders were: E. W. Patrick, $7,700; T. W. Hill, $7,675; Wilson Engine & Contracting Co., $7,647.

MONTPELIER, OHIO.—The city is contemplating paving Main and Empire Sts. at an estimated cost of $64,700.

NEWARK, OHIO.—Bids will be received by the Board of County Commissioners until noon, Feb. 8, for reconstructing about 775 ft. of the Fowler Mill road, and for excavating a channel of 700 ft. C. L. Riley is County Audr.

WAPAKONETA, OHIO.—We are officially advised that the city is receiving bids for paving Mechanic St. for a distance of one mile, at an estimated cost of $51,000. Fred A. Klipfel is City Clk.

YOUNGSTOWN, OHIO.—Bids will be received by the Board of Road Commissioners until 1.30 p. m., Feb. 6, for improving 1,040 lin. ft. of road with slag macadam. Frank Agnew is Secy.

BLOOMFIELD, IND.—The contract for constructing a macadam road in Green County has been awarded to SAMUEL HAYS, of Wilmington, Ind., at $5,010.

COVINGTON, IND.—The Commissioners of Fountain County will receive bids until 1.30 p. m., Feb. 14, for the construction of a gravel road in Davis Township, known as the James I. Brown Road. W. B. Gray is County Audr.

CRAWFORDSVILLE, IND.—GEORGE B. LYNCH has been awarded the contract for constructing a rock road in Montgomery County. The price was $7,699.

FRANKFORT, IND.—Bids will be received until Feb. 11 by the Commissioners of Clinton County for the construction of gravel road No. 193, about 10,560 ft. long. C. F. Cromwell is County Audr.

FRANKLIN, IND.—Bids will be received by Wm. B. Jennings, County Audr., until 1 p. m., Feb. 18, for grading and graveling the road on the line between Johnson and Shelby Counties.

GREENCASTLE, IND.—The contract for constructing a gravel road in Franklin and Jackson Townships has been awarded to A. G. DAY, of Greencastle, at $6,500.

LAFAYETTE, IND.—The contract for constructing a macadam road in Fairfield Township has been awarded to WILLIAM F. FREY, of Lafayette, at $6,234.

LAFAYETTE, IND.—Bids will be received until 10 a. m., Feb. 8, for constructing a gravel road. George W. Baxter is County Audr.

LAPORTE, IND.—Plans are being prepared for the construction of a 20-mile stone road from this city to the Stark county line. N. H. Low, of the Merchants Association, has the matter in hand.

LEBANON, IND.—GEORGE I. MILLER, of Lebanon, has been awarded the contract for constructing a brick roadway and curb on North Lebanon St. The price was $6,432

LOGANSPORT, IND.—The Board of Public Works are receiving bids for paving of Fifth and Sycamore Sts. William Pickett is City Clk.

MICHIGAN CITY, IND.—The city will receive bids until 10 a. m., Feb. 7, for constructing cement and brick sidewalks in different parts of the city. E. J. Heise is City Clk.

PERU, IND.—The contract for building two gravel roads in Washington Township has been awarded to H. C. MODLIN & CO., of Peru, at $11,492.

PORTLAND, IND.—Bids will be received at the office of W. Lea Smith, County Audr., until noon, March 1, for improving a highway between Jay and Randolph Counties.

RUSHVILLE, IND.—No bids were received for constructing the James Brown gravel road in Anderson Township. New bids will soon be asked.

RUSHVILLE, IND.—Bids will be received by the Board of Commissioners of Rush County until 2 p. m., Feb. 7, for constructing a macadam road in Ripley Township. Jesse M. Stone is County Audr.

TERRE HAUTE, IND.—We are officially advised that the contract for constructing a gravel road in Sugar Township was awarded on Jan. 28 to THOMAS GLYNN, at $12,290. The other bidders were: Hawkins Bros., $12,989; M. C. Lloyd, $13,000; O. T. Piety, $13,400; J. P. Peters, $12,100; W. C. Dorsey, $13,040; Joseph McGuire & Son, $13,021. Nathan G. Wallace is County Audr.

TIPTON, IND.—Bids will be received until Feb. 6, for constructing gravel roads in several townships. J. H. Tranbarger is County Audr.

WILLIAMSPORT, IND.—The contract for a gravel road in Jordan Township has been awarded to WILLIAM W. CRANE, of Hedrick, Ind., at $5,000.

DETROIT, MICH.—The Department of Public Works has been directed to advertise for bids for paving the following streets: Beaufait Ave, 25 ft. wide with cedar blocks, estimated cost, $24,815; Willis Ave., 26 ft. wide, with cedar blocks, estimated cost, $21,000; Berlin St., 26 ft. wide, with cedar blocks, estimated cost, $17,424; Missouri Ave., 26 ft. wide, with cedar blocks, estimated cost, $9,120; Dearborn Ave., 30 ft. wide, with cedar blocks, estimated cost, $11,664; Dix Ave., 46 ft. wide, with cedar blocks, estimated cost, $13,464; Canton Ave., 26 ft. wide, with sheet asphalt, estimated cost, $24,600. Charles A. Nichols is City Clk.

LUDINGTON, MICH.—Bids will be received by the Common Council until 4 p. m., Feb. 20, for constructing pavements on Robert, Danaher and Madison Sts. Dean Thompson is City Clk.

MENOMINEE, MICH.—The city will receive bids until 2 p. m., Feb. 14, for constructing a gravel road on the bay shore. Carl A. Anderson is Clk.

BELLEVILLE, ILL.—We are officially advised that the city will receive bids about Feb. 15 for paving in the C. St. district at an estimated cost of $75,000. F. J. Kern is Mayor.

SPRINGFIELD, ILL.—A contract was awarded on Jan. 18 to H. NILCH & SON for paving East Edwards St. Their bid was $1.495 per sq. yd., paving, and 48 cts. per lin. ft. for curbing.

MADISON, WIS.—The Common Council has decided to set aside $250,000 for street improvements. Asphalt, brick and sandstone block pavement will be used exclusively. C. F. Icke is City Engr.

KIRON, IOWA.—Bids will be received by the Board of Trustees of Otter Creek Township until 1 p. m., Feb. 6, for road work. J. P. Jepsen is Clk.

WILLIAMSBURG, IOWA.—Bids will be received by S. N. Boland, County Clk., until Feb. 15, for county road work.

ST. PAUL, MINN.—Bids will be received by George J. Ries, County Audr., until Feb. 6 for road improvements in Ramsey County.

WORTHINGTON, MINN.—Bids will be received by E. C. Pannell, County Audr., until 2 p. m., March 13, for about 10,066 yds. of grading.

MANHATTAN, KAN.—Bids will be received by the city until 6 p. m., Feb. 7, for approximately 28,400 yds. paving and 9,450 cu. yds. excavation on Poyntz Ave., Houston and Fourth Sts. C. T. Gist is City Clk.

SAPULPA, OKLA.—Bids will be received by the city until Feb. 4, for constructing approximately 16,000 sq. yds. of sheet asphalt pavement. Ira J. Anderson is City Clk.

SALT LAKE CITY, UTAH.—Bids will be received by the Board of Public Works, H. G. McMillan, Chmn., until Feb. 3, for constructing cement sidewalks on Ninth Ave.

CHEHALIS, WASH.—Bids will be received until 2 p. m., Feb. 7, by the Board of County Commissioners of Lewis County for furnishing and delivering 75,000 ft. of 8-ft. × 3-in. road plank for the Cowlitz-Ethel County road.

SPOKANE, WASH.—Bids have been received by the Board of Public Works for grading, curbing and paving Wall St., as follows: Mitchell Bros., $57,000; Boyton, Church & McCoy, $59,500; Spokane Asphalt & Macadam Paving Co., $60,400. The City Engineer's estimate was $52,000. J. C. Ralston is City Engr.

TACOMA, WASH.—The contract for improving Pacific Ave., from Hood to 31st Sts., has been awarded to the KEASAL CONSTRUCTION CO.

TACOMA, WASH.—A contract has also been awarded to the WARREN CONSTRUCTION CO. at their bid of $23,448, for street paving in Districts 27 and 28.

VANCOUVER, WASH.—Bids will be received by the City Council until 7.30 p. m., Feb. 6, for 10,000 lin. ft. of 3 × 12-ft. lumber for cross-walks.

WATERVILLE, WASH.—Bids will be received until Feb. 7 for improving eight miles of macadam roadway at an estimated cost of $30,000.

HOOD RIVER, ORE.—We are officially advised that the City Surveyor has been directed to prepare plans and specifications for paving about 15 blocks. H. B. Langelle is City Recdr.

AZUSA, CAL.—We are officially advised that the contract for improving Azusa Ave. and Center St. has been awarded to the B. R. DAVISSON CONTRACTING CO., of Monrovia, Cal., at $40,000. Noted Jan. 5.

COALINGA, CAL.—Bids will be received by W. R. Odom, Clk. Bd. of Supervisors, until 3 p. m., Feb. 6, for paving with asphalt concrete a portion of Fifth St.

FRESNO, CAL.—Bids will be received until Feb. 6 for grading and curbing Angus St. and constructing two brick culverts and sidewalk approaches. W. H. Ryan is City Clk.

LONG BEACH, CAL.—The OIL MACADAM PAVING CO. has been awarded the contract for paving Circle Park, Maine St. and Tenth St., at $20,558.

LOS ANGELES, CAL.—The Board of Public Works has awarded a contract to GEORGE R. CURTIS for improving Marmion Way, at $5,881. The item prices were: 90 cts. per lin. ft. grading and graveling; 30 cts. per lin. ft. cement curb; 14 cts. per sq. ft. cement gutter; 30 cts. per sq. ft. vitrified block gutter.

LOS ANGELES, CAL.—The contract for grading and constructing cement curbs and sidewalks on Vernon, Deuker, La Salle, Harvard, Hobart and Western Aves. has been awarded to PAONESSA & TAYLOR, at $28,000.

MONTEREY, CAL.—Bids will be received by the Clerk of the Trustees until 7.30 p. m., Feb. 7, for grading and macadamizing Pacific St. and Lighthouse Ave. George S. Gould, Jr., is City Clk.

NATIONAL CITY, CAL.—The contract for improving Ave. A, from Sixth to Twelfth Sts., has been awarded to CLOUSE & GOODBODY, of San Diego, Cal.

PASCO, CAL.—The contract for grading several streets in the business and residential sections of the city has been awarded to JORDAN & WRIGHT, of Ellensburg, Wash., at 38 cts. per cu. yd. for grading and 1½ cts. for overhaul. The estimated cost of this work was $30,000.

REDWOOD CITY, CAL.—The City Engineer has completed plans and specifications for improving certain streets in District No. 15. The estimated cost is $10,690.

RIVERSIDE, CAL.—Bids will be received by the Board of County Supervisors, A. B. Pilch, Clk., until Feb. 8, for macadamizing about 1¾ miles of the Box Springs Canyon Road.

MONTREAL, QUE.—The City Council has authorized a by-law to raise $1,000,000 for street paving this year. Address the City Clerk.

VANCOUVER, B. C.—The contract for paving Pender St. has been awarded to M. P. COTTON & CO. at his bid of $45,930.

VANCOUVER, B. C.—Bids will soon be asked for laying granolithic pavement on Broadway and bitulithic on Twelfth Ave. N. A. Clement is City Engr.

MANUFACTURING PLANTS.

*(*Denotes that this work is advertised in Engineering News.)*

GROTON, MASS.—The Vanadium Metals Co., of East Braintree, has let the contract for its proposed foundry plant at Groton, next to the new plant of the New London Ship & Engine Co., to the J. W. BISHOP CO., of Worcester. Work will be rushed on the buildings, which are to be of brick and steel. The company will employ about 50 men in the Groton foundry at the start.

MALDEN, MASS.—A plant is to be established here by the Yale Knitting Co. It will be located on Jackson St. and will be three stories high, of concrete construction. The company has also purchased two factories. The estimated cost of the structure is $40,000.

BRANFORD, CONN.—Louis D. Fisk, of Branford is a Director in the Great Hill Quarry Co., which has recently been incorporated in New York State, with a capital of $1,000,000, for the purposes of quarrying stone and manufacturing stone and building materials. The other directors are: William S. Armstrong and Colin M. Ingersoll, of New York, and George Webster and Kingsley L. Martin, of Flushing, L. I. The new concern is to go into the quarry in a large way at the Great Hill Quarry in Branford, which is owned by the Fisks. Mr. Fisk has had in operation for some time a passenger railroad from the main line of the New Haven road to the fair grounds under the name of the Damascus Railway and has received the right to extend this road to the quarry and at the south end to tidewater and build piers and otherwise equip it to carry stone from the quarry to the Sound for shipment on barges. The new company proposes to develop both quarry and railroad extensively.

EAST WINDSOR, CONN.—The newly organized Keiser & Boasberg Plantation, Inc., is about to erect 20 tobacco sheds on its East Windsor property at an estimated cost of $25,000 to $30,000. They are to be of wood and 45 × 150 ft. each.

NEW BRITAIN, CONN.—The Charter Oak Brick Co. has been incorporated by William J. Jordan, John E. Jordan and Annan M. Jordan, of New Haven, and will commence business at the plant of the old Phoenix Brick Co. here with a capital stock of $10,000. William J. Jordan recently purchased the Phoenix Brick Co. The same persons have incorporated the Jordan Co. of New Haven, which is to be located there and handle the output of the Charter Oak Co. and deal in brick, plaster and artificial stone, its capital stock being $25,000.

NEW YORK, N. Y.—We are officially advised that plans are being prepared by Summerfield & Stetler, Archs., 19 Union Sq., for the construction of a 7-story factory to be built at Broome and Lewis Sts., for the Minsky Realty Co., Second Ave. and 14th Sts. Estimated cost, $200,000.

NEWARK, N. J.—The Grasselli Chemical Co., a subsidiary of the Standard Oil Co., which has a plant at Tremley, fronting on Staten Island Sound, just south of Elizabeth, has acquired about 15 lots, comprising a plot of about 54,000 sq. ft., in Newark, for improvement with a factory building. Through Feist & Feist, the company purchased the plot on Passaic Ave., and extending along the Manufacturers' Branch of the Central R. R. of New Jersey, from the Feigenspan Brewing Co. for about $25,000. The Chemical Company is having plans prepared for a 4-story building, 100 × 400 ft., which will be used for the manufacturing of acids. The proposed plant will give employment to about 400 people.

BEAVER, PA.—The Crucible Steel Co. of America plans to construct an extensive plant on the Ohio River near Beaver, to be operated by the Pittsburg Crucible Steel Co., a charter having been applied for by the latter-named company. The approximate cost of the improvements is $7,500,000.

CONNELLSVILLE, PA.—Property has been purchased on Seventh St., West Side, by J. L. Cypher, of the National Foundry Co., and associates, for the purpose of establishing a foundry. Arrangements are now being made for construction.

McDONALD, PA.—Plans have been completed by the engineers of the Carnegie Steel Co. for the erection of mills at its car plant to be built at McDonald.

McKEESPORT, PA.—Plans are being prepared for a 2-story brick plant for the Cudahy Packing Co., to be erected here at a cost of $25,000. J. E. Otis, of Braddock, is Arch.

PHILADELPHIA, PA.—The contract for constructing a 10-story concrete factory, 71 × 190 ft., for Smaltz-Goodwin & Co., has been awarded to the TURNER-FORMAN CONCRETE STEEL CO., Commonwealth Bldg. Estimated cost, $250,000.

READING, PA.—Stockholders of the Montello Brick Co. elected the following directors recently: Lambert A. Rehr, A. J. Brumbach, J. G. Mohn, J. B. Fricker, Nathaniel Ferguson, W. W. Light and Howard L. Boas. The authorization of the mortgage indebtedness of $500,000 with which to put the several plants in operation has been certified to by the Secretary of the Commonwealth. Construction work will soon start.

WARREN, PA.—The United Refining Co. plans to make improvements to its plant on the East Side, to include enlarging the wax house, the erection of a filter house, the installation of motors and pumps, etc. Estimated cost, $25,000.

WESTFIELD, PA.—The contract to build a plant for the Helvetia Milk Condensing Co. has been awarded to the CORNING BUILDING CO. at $45,000.

WHEATLAND, PA.—It is reported that Wikoff Bros., of Youngstown, Ohio, will take over the Wheatland rolling mill of the Shenango Iron & Steel Co. and will convert it into a steel plant. The puddle furnaces will be done away with and several open-hearth furnaces erected. A blooming mill will also be built and other improvements made for manufacturing merchant bar. The improvements will cost over $300,000, and employment will be afforded several hundred hands.

BALTIMORE, MD.—The Maryland Metalizing Co. has been incorporated with a capital of $100,000 for the purpose of establishing a plant to manufacture metallized plaster of paris, wood or other substances fashioned into articles of utility. George M. Griffith is the promoter.

BALTIMORE, MD.—The contract for constructing a 2-story factory, 117 × 125 ft., for the Canton Box Co., 2515 Boston St., has been let to GEORGE A. BLAKE, Law Bldg. Plans were prepared by J. A. Wilson and W. L. Smith, Archs., Law Bldg. Cost, $40,000.

Plans have been perfected for the establishment here of an extensive plant to manufacture gas ranges, gas water heaters, miscellaneous gas appliances and stoves generally. H. W. Hunter, of Baltimore, is Pres. The new company will have an authorized capital stock of $300,000. A site for the plant has been secured in southwest Baltimore.

CHESTERTOWN, MD.—William Numsen & Sons, 18 Light St., Baltimore, are planning the erection of a corn packing plant in Chesterton. The cost is estimated at $30,000.

ASHEVILLE, N. C.—The American Wagon Co. has been organized with $50,000 capital stock. The officers are: Joseph Stifter, Pres., of Fort Smith, Ark.; J. C. Wallace, Vice-Pres.; James E. Rector, Secy.-Treas., both of Asheville. A plant to manufacture Asheville straight hound farm wagons, delivery wagons, etc., will be built on South Main St.

DOERUN, GA.—T. N. Spur[illegible] of Doerun, is interested in a company [illegible] will erect and operate a cottonseed-oil [illegible] at Doerun next spring. The mill will [illegible] capacity of 20 tons, and about $4,[illegible] be expended for the buildings [illegible],000 for equipment. The main build[illegible] will be of brick, 36 × 64 ft., two stor[illegible], while the seedhouse will be of frame [illegible]struction, 50 × 100 ft., and the hull-[illegible] of frame construction, 40 × 50 ft. [illegible] for the buildings will be prepared by [illegible] Burruss Engineering Co., of Atlanta. [illegible] to Mr. Spurlock, other promoters [illegible] enterprise are: J. B. Mills, J. G. [illegible] Powell and I. F. Coleman, all of Doerun [illegible] W. A. Hatcher, of Putney.

SAVANNAH, GA.—It is re[illegible] that B. L. Fitch, of Rome; J. F. Ba[illegible] and others are promoting the establishme[illegible] a plant at Savannah for the purpose [illegible] extracting and manufacturing turpentine, [illegible] and other products. It is und[illegible] that a site has been selected and cons[illegible] work on the buildings will be star[illegible] once. The main building will be of w[illegible] 12[illegible] ft., the equipment having alrea[illegible] been ordered.

The American Barrel Co., E. [illegible] Brogden, Pres., will establish a plant to [illegible] ufacture ventilated and slack barrels [illegible] kinds. Cost, $100,000. This company [illegible] subsidiary to and will use machine[illegible] patented and manufactured by Truckers [illegible] & Barrel Co., recently reported incor[illegible].

NEW ORLEANS, LA.—The Fa[illegible] McMahon Wireless Telegraph & Telephone [illegible] will establish a plant to manufacture [illegible] patented wireless telegraph machine inven[illegible] by Mr. Falk. A fireproof building wi[illegible] erected and machinery installed. The [illegible] are: P. J. McMahon, Pres.; H. L. [illegible], Vice-Pres.; W. F. Pullen, Secy.; John Prendergast, Treas.

NEW ORLEANS, LA.—The busi[illegible] of the Success Machinery Co., of this [illegible], has been absorbed by the Success [illegible] Conveyor Co., a concern recently [illegible] and capitalized at $750,000. The [illegible] company has already taken over the business and will shortly start manufactu[illegible] the Turnbull conveyor, a mechanical [illegible] invented by W. J. Turnbull, of New Orleans. The officers of the new company are: Henry W. Hille, Pres.; W. J. Turnbull, Vice-Pres.; L. Levedan, Secy.-Treas.; P. A. L[illegible], Jr., and George F. Maier.

JOHNSON CITY, TENN.—A plant to manufacture textile novelties is contemplated here by J. H. Hice, of Hickory, N. C. A company is being incorporated which will have a capital of $25,000.

CINCINNATI, OHIO.—The U. S. Electric Tool Co., 1938 West Eighth St., plans to erect a factory at Sixth and Mount Hope Road, the approximate cost of which is $10,000.

FINDLAY, OHIO.—According to reports the Lockport Stamping Co., of Lockport, N. Y., plans to erect a factory at Findlay. W. A. Babbitt, Pres. and Gen. Mgr., W. A. Williams and J. E. Emerson recently visited this city seeking a site.

FRANKLIN, OHIO.—The Franklin Coated Paper Co. has been incorporated with a capital of $300,000, for the purpose of erecting a plant here. The incorporators are: John J. Maloney, John Fischer, Walter Symmes, Ben. F. Bickley and Dr. C. W. Hodges, the first three of whom are actively connected with the enterprise.

HUBBARD, OHIO.—The Youngstown Tile & Steel Roofing Co. will locate its proposed plant at Hubbard, at the north end of Jackson Heights. A building, 200 × 300 ft., will be erected and 60 men will be given employment. The plant of the company is now located on Wilson Ave., Youngstown.

PORTSMOUTH, OHIO.—A canning plant is to be established here by E. Inskip, of Urbana. The site is being selected.

ROSSFORD, OHIO.—Work has been started on two of the 14 proposed buildings, to cost $1,000,000, which the Edward Ford Plate Glass Co. is to add to its plant at Rossford. DeVore & McGormley, Engrs., who prepared plans, have awarded the contracts for the grinding and polishing structures, to be the largest of the 14. It will be 190 ft. wide and 1,055 ft. long. The polishing building is to be 75 ft. wide and 300 ft. long. The McCLINTIC-MARSHALL CONSTRUCTION CO., of Pittsburg, has been given the contract for the steel work for the two buildings, while LEMLE & HARWOOD, of Toledo, will do the concrete and brick work. The steel window sash contract goes to the TRUSS CONCRETE STEEL CO., of Detroit; and the sheet metal contract to the L. F. BURDICK CO., of Toledo. The RATH CONSTRUCTION CO., of Milwaukee, will do the concrete roofing. The contracts for the other twelve buildings will be let in a few days. It is expected that all 14 buildings will be completed by Oct. 1 next. Noted on Dec. 8.

TOLEDO, OHIO.—The Southern Naval Stores Construction Co., of Toledo, has been incorporated with a capital of $25,000 by Sigmund Sanger, K. A. Kaley, Tinde Wooster, E. C. Froelich and Aaron B. Cohn. This company has been launched to build two plants in the south to extract resin and turpentine from southern pine stumps. One of the factories will be located in northern Florida and the other in Georgia. When the plants are completed they will be turned over to a company composed of stockholders of the U. S. Naval Stores Co. This is the concern that was organized by J. K. Secor and James S. Brailey, Jr., of this city, using a process of extraction perfected by H. T. Yaryan. The U. S. Naval Stores Co. already has a plant in successful operation in Gulfport, Miss.

G. S. Mills, Ohio Bldg., Toledo, is taking figures and will let contracts soon for the 3-story and basement factory addition, 40 × 60 ft., for John Swigart, 3322 Cherry St. Cost, $20,000.

Same architect is taking figures on a [illegible]-story factory addition, 100 × 120 ft., for A. Black & Co., cloak manufacturers, of Toledo. Cost, $22,000.

WARREN, OHIO.—The General Fire Extinguisher Co., of Providence, R. I., has awarded the WOOD CONSTRUCTION CO., of Detroit, Mich., the contract to erect a steel and concrete factory at its plant at Warren.

YOUNGSTOWN, OHIO.—The capacity of the plant of the Youngstown Bronze & Iron Foundry Co. at 548 Poland Ave., will be practically doubled, it is stated. Cost, $10,000.

The Youngstown Carriage & Wagon Co. is being reorganized and a site is being sought for the location of a factory. Warren P. Williamson is Gen. Mgr.

The Reinforced Tile Roof Co., with $50,000 capital stock, has been granted incorporation papers. John P. Young, Albert A. Lane, Henry M. Caldwell, Harry K. Filler and [illegible] Macklin were named as incorporators. The company plans to build a plant at a site not yet definitely decided upon.

CALUMET (Tolleston post-office), IND.—The Buckeye Steel Castings Co., of Columbus, has just completed a deal whereby it becomes the owner of 85 acres of land at Calumet, a new steel city, between Gary and Hammond, bounded by Kennedy Ave. on the east, [illegible] St. on the north, 144th St. on the south, and the canal on the west. The purchase price was approximately $150,000, and [illegible] has been appropriated by the Buckeye Company for building a large plant, work on which will begin in the spring.

DETROIT, MICH.—The International Aviation Co., of Detroit, care of Harold McIntyre, has been incorporated with a capital of [illegible]. The concern will erect a factory in Detroit as soon as a site can be secured.

Albert Kahn and E. Wilby, Trussed Concrete Bldg., are preparing plans for an oil house for the Lozier Motor Car Co., Ford Bldg. It will be constructed of reinforced concrete, with a composition roof and cement floors.

Bachelder, Wasmund & Co., 70 Atwater St. East, are having plans prepared for a factory and warehouse, 36 × 120 ft., to be located on Jefferson Ave. The owners will sublet all contracts and buy all materials. The buildings will be constructed of stock brick and Bedford stone, with a composition roof, cement floors, electric fixtures and lavatories.

T. E. Shiels, Bamlet Bldg., has awarded the following contracts for the 2-story factory building, 150 × 200 ft., for William Clippert, 186 St. Aubin Ave.: Structural iron work let to JOHN FINN & CO., McGraw Bldg.; carpentry, to OTTO PISCHKE, 308 Gilbert St.; tile and composition roofing, to RAYMO & SCHINDLER, 682 Michigan Ave. Cost, $50,000.

DETROIT, MICH.—Louis Lehle, 109 Randolph St., Chicago, Ill. and R. E. Raseman, Penobscot Bldg., Detroit, have awarded the masonry contract for the 3-story and basement addition, 60 × 100 ft., to the present brewery of the Goebel Brewing Co., 351 Rivard St., Detroit, to T. SCHEICH, 12 Jay St. Estimates have been received for other work but contracts have not been awarded. Cost, $25,000.

Albert Kahn and E. Wilby, Trussed Concrete Bldg., have awarded the general contract for the addition to the factory of the Chalmers Motor Car Co., B. D. Chapin, Gen. Mgr., Jefferson Ave. and the New Belt Line R. R., to STOKES & WHITTINGHAM, 78 Linden St., Detroit. Cost, $20,000.

BELLEVILLE, ILL.—The Joan D'Arc Co. plans to construct a plant here to manufacture packless valves, school globes and ice-making plants. The structure will be erected on Commercial Pl. and will be 585 × 80 ft. This company recently purchased the plant of the Howe Mfg. Co. at Louisville, Ky., for $250,000.

FERGUS FALLS, MINN.—An ice plant is contemplated here by J. G. Durrell and associates. A company is being formed for this purpose with a capital of $25,000.

BELLE FOURCHE, S. DAK.—A cold storage plant is to be built here by the Belle Fourche Valley Creamery, contracts for which are to be let soon. The company recently underwent reorganization and now has increased capital and additional machinery. Estimated cost, $10,000.

STUTTGART, ARK.—The American Mill & Warehouse Co., capitalized at $75,000, with headquarters at Stuttgart, has completed organization. The company is a cooperative one and is composed largely of growers of rice in that territory. Beside the erection of a mill, it proposes to establish a bonded warehouse. The officers are: Philip Reinsch, Pres.; J. A. Jeorg, 1st Vice-Pres.; J. C. Harris, 2d Vice-Pres.; A. A. Tindall, Secy. and Treas., and Fred D. Gibson, Business Mgr.

HOUSTON, TEX.—Bids have been asked for by Armour & Co. for their 3-story office and refrigerating plant to be erected by them at the corner of Fannin and Commerce Sts. The building is to cost about $125,000. A smokehouse will be run in connection with the storage plant and ice for the refrigerating of the meats will be manufactured on the place.

HOUSTON, TEX.—The Houston Structural Steel Co. plans to make extensive improvements to its offices and yards at Yale and Center Sts., to include an addition to the plant, telephone installation, etc., which will, it is expected, increase the capacity to 100,000 tons a month.

LEWISTON, IDAHO.—The Northwest Packing Co. has filed articles of incorporation with $250,000 as capital stock, for the purpose of erecting a meat packing plant here. The incorporators include: S. Heitfield, R. Skeels and S. Bodine.

BREMERTON, WASH.—Bids were received as follows on Jan. 28, by the Bureau of Yards and Docks, Navy Dept., Washington, for the construction of a general foundry building at the navy yard, Puget Sound: Penn Bridge Co., Bond Bldg., Washington, (a) $171,940, (b) $173,990, (c) 20 cts.

Puget Sound Bridge & Dredging Co., Central Bldg., Seattle, (a) $169,800, (b) $181,000, (c) $8, (d) $4,387, (e) $8,000.

Sound Construction & Engineering Co., Lowman Bldg., Seattle, (a) $165,739, (b) $169,739, (c) 33.3 cts., (d) $3,170, (e) $8,370.

Lance & Peters, Inc., Walker Bldg., Seattle, (a) $172,757, (b) $178,622, (c) 45 cts., (d) $4,785, (e) $8,038.

Erickson Construction Co., Pioneer Bldg., Seattle, (a) $165,000, (b) $167,500, (c) 35 cts, (d) $1,260.

W. N. Concannon Co., Monadnock Bldg., San Francisco, Cal., (a) $137,900, (b) $143,825, (c) 37 cts., (d) $2,300, (e) $5,000.

C. F. Graff, Crary Bldg., Seattle, (a) $179,900, (b) $185,400, (c) 18 cts., (d) $2,867.

GOLD HILL, ORE.—An ice plant is to be established here as the result of a contract which was closed between the FRICK CO., ice plant manufacturers of Waynesboro, Pa., and A. J. Olsen. The plant is to be located on the Southern Pacific right-of-way west of the planing mill of the Gold Hill Lumber Co.

MARSHFIELD, ORE.—It is stated that the Coos Bay Creamery Co., operating a creamery on Coos River, has made plans for starting a condensed milk plant.

PORTLAND, ORE.—The Doernbecher Furniture Mfg. Co. has announced plans for enlargement of the plant, which is situated in Sullivans Gulch, at East 28th St. and Sandy Boulevard. At present the company is completing a reinforced-concrete warehouse at the east end of the present plant, which will cost $10,000. Another building, 80 × 400 ft. and two stories high will be erected east of the present plant, and will be used as a chair factory. F. S. Doernbecher is Pres.

PORTLAND, ORE.—The capital stock of the Portland Flouring Mills Co. will be increased from $300,000 to $1,500,000. Additional articles of incorporation were filed with the Secretary of State. The purpose of the company is to combine all of its plants and properties in the Northwest into one holding company. Up to this time the various mills and warehouses have been operated as separate companies. By the change the operation of the various plants will be simplified. No extensions or changes other than these are contemplated. The company has branch mills in eastern Washington, including plants at Walla Walla, Prescott, Lind, Dayton and other places in the wheat belt, as well as mills and other holdings on Puget Sound, all of which will be merged into one corporation with headquarters in Portland.

Ten acres of land have been purchased by the Portland Railway, Light & Power Co. in southeast Portland upon which will be built the company's car shops. The tract lies directly west of the shops of the Southern Pacific Co. F. I. Fuller, Vice-Pres., is now having the plans for the shops drawn.

CENTERVILLE, CAL.—The Hunt Bros.' Canning Co., of Oakland, is making extensive plans for the erection of a cannery on the 5-acre tract of land which they recently leased on Railroad Ave. at this place.

EL CENTRO, CAL.—Robert E. Goepel, of Port Gibson, Miss., is contemplating the erection of a cottonseed oil mill here, to cost $100,000, it is stated.

HEMET, CAL.—Plans are in preparation for a 2-story brick addition to be built to the plant of the Hemet Ice Co., of which W. E. Kimmell is Mgr. It will be 50 × 100 ft., with concrete foundation and composition roof, and will be used for manufacturing and storage purposes.

The Hemet Canning Co. will erect a 1-story building to be used for a canning factory. It will be 100 × 100 ft., with a cement foundation, iron roof and latest machinery.

HUNTINGTON BEACH, CAL.—Plans are being prepared by Krempel & Erkes, Arch., Henne Bldg., Los Angeles, for the construction of a factory for the Holly Sugar Co. at Huntington Beach. Machinery plans have been made by engineers of the company, and CARL LEONARDT, H. W. Hellman Bldg., Los Angeles, has the contract for building on a unit basis. The factory will cost $400,000.

LOS ANGELES, CAL.—The California Iron & Smelting Co. has applied for incorporation papers here. The company proposes to establish a manufacturing plant in Los Angeles. The capital stock is $500,000 and the incorporators are: T. Wiesendanger, E. D. McDonald, M. B. Jacobs, George I. Meyers and Francis E. Buchanan.

SAN RAFAEL, CAL.—The California Steel Monolithic Co. recently incorporated will erect factory buildings on the Golf Link tract at a cost of about $150,000, having closed a deal for the purchase of 214 acres of land for a factory and town site. William Mooser, Union Trust Bldg., San Francisco, is the Arch.

MIDLAND, ONT.—The Campbell Milling Co., of Toronto, has purchased a site here on which to erect a 1,000-bbl. flour mill.

PICTON, ONT.—Church Bros. will build a canning factory at the corner of Talbot and Main Sts., costing $50,000.

BRANDON, MAN.—The grain elevator of the Maple Leaf Flour Mills Co., which was destroyed by fire recently at a loss of $30,000, will be rebuilt at once, it is stated.

MEDICINE HAT, ALTA.—The Alberta Linseed Oil Co., organized with a capital of $500,000, has purchased a site here upon which they will erect a plant.

EL CHICO, MEX.—The Compania Beneficiadora de Minerales de Atotonilco el Chico, S. A., recently formed and incorporated under the laws of Mexico, to erect a Customs mill and cyanide plant in El Chico, has commenced preliminary operations, and J. B. Empson and J. R. Brown have been placed in charge of the work of preparing plans and specifications for the proposed mill. The Board of Directors consists of J. P. Warr, Pres.; Governor P. L. Rodriguez, J. P. Honey, S. Ludlow, A. Ludlow, R. N. Rabling, Commisario, and G. Gonzalez, Secy. and Treas. Address P. O. Box 135, Pachuca. All payments to be made through the Banco de Hidalgo, Pachuca or the Banco Internacional y Hipotecario in Mexico City.

MISCELLANEOUS CONTRACTS.

(*Denotes that this work is advertised in Engineering News.)

U. S. RECLAMATION SERVICE.—All news concerning canal and irrigation projects, etc., will be found under Water Supply—Irrigation.

DOCKS, ETC.—Boston, Mass.—The Boston Cold Storage & Terminal Co. will spend $250,000 on improvements in East Boston. A system modeled after the Bush terminal, Brooklyn, is planned, so that the cold storage plant will be accessible by water, or rail by means of a car float connecting with the Boston & Maine R. R. Co. and New York, New Haven & Hartford R. R. terminals. Docks will be constructed for fishing craft, as the cold storage warehouses are designed for fish. Wendell F. Brown is Pres.

GRAVEL.—Boston, Mass.—Bids will be received until Feb. 13 by J. Edward Mullen, Supt. of Supplies, Tremont Bldg., for furnishing gravel.

CRUSHED STONE.—Boston, Mass.—Bids will be received until Feb. 17 by J. Edward Mullen, Tremont Bldg., for furnishing crushed stone.

SUBWAY.—Boston, Mass.—The Boylston St. Merchants' Association has proposed a plan for a double-track subway from near Park Sq. entrance to the present subway to the junction of Beacon St. and Brookline Ave. The route follows Boylston St. and Commonwealth Ave., the intention being to have it take the place of the proposed Riverbank Subway, which is remote from the line of retail stores. Stations are proposed at Arlington St., Copley Sq. and at Massachusetts Ave., and there will be a connection with the new Cambridge Subway at Park St.

SUBWAYS AND TUNNELS. — Boston, Mass.—A comprehensive system of subways and tunnels radiating from Park Sq. has been proposed by Herbert F. Keith, of Great Barrington, Mass. Its main features are the connection of subways and tunnels with South Boston, East Boston, the North and South Stations and Park St. and South Station. The South Boston connection would pass under Dover St. bridge, and there would be a subway through Eliot and Kneeland Sts. to South Station across the end of South Boston to East Boston. The project also provides for buildings at Park Sq., one 200 × 560 ft., to be used as a station hotel and department store, and others to be used by the state or city for business offices.

REPAIRS TO SHELTER HOUSE.—New York, N. Y.—Bids will be received until 3 p. m., Feb. 9, by the Park Board, Dept. of Parks, for repairs to the shelter house in city park, Boro. Brooklyn. Charles B. Stover is Pres. Bd.

DREDGING.—New York, N. Y.—Bids were received by Calvin Tomkins, Comr. of Docks, on Jan. 31, for Contract No. 1263, for furnishing all the labor and materials required for dredging in the Boros. of Manhattan, Brooklyn, Queens, The Bronx and Richmond. The lowest bidders were: Class 1: Henry Du Bois Sons Co., 17 State St., New York, 13 cts. per cu. yd. Class 2: P. Sanford Ross, Inc., Jersey City, N. J., 24.9 cts. Class 3, same contractor, 24.9 cts. Class 4: R. G. Packard Co., 130 Pearl St., New York, 23 cts.

BINDER STONE, CEMENT, ETC. — New York, N. Y.—Bids will be received until 11 a. m., Feb. 15, by Alfred E. Steers, Pres. Boro. Brooklyn, for furnishing and delivering binder stone, asphalt sand, limestone or other inorganic dust, asphalt paving blocks, wood paving blocks, bluestone, flagstone, cement, tar road oil, broken trap rock and trap rock screenings.

CONVEYORS.—New York, N. Y.—The MEAD-MORRISON MFG. CO., 149 Broadway, New York, has been awarded a contract for the installation of six McCaslin conveyors for handling crushed rock, clay and clinkers, hot and cold at the plant of the Canada Cement Co.

GRAIN ELEVATOR.—Ogdensburg, N. Y.—The JOHN S. METCALF CO., Chicago and 10 St. John St., Montreal, Que., have been awarded the contract for the construction of a 500,000-bushel reinforced concrete grain elevator at Ogdensburg for the Ogdensburg Terminal Co. Receiving capacity from boats, 18,000 bushels per hour, maximum. Shipping capacity, 60 cars in 10 hours. Approximate total cost, $200,000. The drawings and specifications for the elevator were also prepared by the same company.

SIGNAL TOWERS.—Baltimore, Md.—The contract for the erection of four signal towers and stations for the Pennsylvania R. R. Co., has been awarded to M. C. DAVIS.

REPAIRS TO ROOF, ETC.—Washington, D. C.—Bids were received as follows, on Jan. 28, by the Bureau of Yards and Docks, Navy Dept., Washington, for repairs and additions to roof of building No. 23, Navy Yard, Washington: Upton-Smoot Construction Co., 902 F St., Washington, $16,217; Penn. Bridge Co., Bond Bldg., Washington, $14,890; Lauer & Harper Co., Westport, Md., $15,476; Snare & Triest Co., 143 Liberty St., New York, $16,780; Boyle-Robertson Construction Co., Union Trust Bldg., Washington, $16,170.

PIPE, VALVE WORK, ETC.—Washington, D. C.—The contract for furnishing pipe, valves, and conduits for the M St. High School, Simmons and Douglas Schools, Washington, has been awarded to the YORK ENGINEERING CO., York, Pa., at $9,146. List of bidders noted on Jan. 19.

BRASS, STEEL, ETC.—Washington, D. C.—Bids will be received until Feb. 7 by the Bureau of Supplies and Accounts, Navy Dept., Washington, for furnishing the following supplies to the various naval stations and navy yards: Norfolk, Va., Schedule 3286, 3 M. ft. mahogany, 25 M. ft. white pine, 40 M. ft. yellow pine; Schedule 3287, 8,615 lbs. naval rolled brass; Schedule 3283, 14,100 lbs. medium bar steel, 100,000 lbs. galvanized sheet steel, 25 sheet tin. Brooklyn, Schedule 3284, 6,600 lbs. bronze tubing and miscellaneous steel tubing. Boston, Mass., Schedule 3283, 4,100 lbs. sheathing copper, 4,100 lbs. sheathing yellow metal, 208,450 lbs. medium shapes steel; Schedule 3284, 26,000 lbs. brass voice tubing.

DRAINS.—Raleigh, N. C.—The Southern Land Reclamation Co., it is reported, has been organized for the purpose of undertaking the state's portion of draining the Mathamuskut Lake Drainage District. The district proposes to issue $400,000 of bonds to provide for the cost of the drainage system, which will include canals and a large pumping plant, the pumps to have a daily capacity of 113,000,000 gallons. D. N. Graves, Boston, Mass., is interested.

*BANK PROTECTION.—Savannah, Ga.—Bids were received on Jan. 26 by Col. Dan C. Kingman, Corps Engrs., U. S. A., Savannah, for bank protection of Savannah River at Augusta, Ga. The bids follows: Twiggs, McKenzie & Bowe, Augusta, excavation of trench, 40,000 cu. yds., 40 cts.; stone for filling trench, 54,000 tons, $1.65; stone furnished for sub-pavement, 16,000 tons, $2.30; stone for top pavement, 48,000 tons, $2.60. Total, $266,700. Bryan & Co., Jacksonville, Fla., excavation of trench, 40,000 cu. yds., 45 cts.; stone for filling trench, 54,000 tons, $1.65; stone for sub-pavement, 16,000 tons, $2.25; stone for top pavement, 48,000 tons, $2.12. Total, $244,600 (recommended for acceptance).

SHED WORK.—New Orleans, La.—Bids will be received until Feb. 7 by the Board of Port Commissioners for the floorings in the Hugh McCloskey and the Branch M. King sheds.

CONVEYORS.—Louisville, Ky.—The MEAD-MORRISON MFG. CO., 149 Broadway, New York, has been awarded a contract by the Louisville Cement Co., for furnishing a McCaslin Conveyor to handle crushed rock from Gates gyratory crusher No. 12. This conveyor will have a capacity in excess of 200 tons per hour.

ICE PIERS.—Cincinnati, Ohio.—Bids will be received by Maj. H. Jervey, Corps Engrs., U. S. A., until 2 p. m., Mar. 7, for the reconstruction of the Middleport ice piers in the Ohio River, at Middleport.

*LOCK-TENDERS DWELLINGS.—Cincinnati, Ohio.—Bids will be received until 2 p. m., Feb. 28, by Maj. H. Jervey, Corps Engrs., U. S. A., Cincinnati, for constructing four lock-tenders dwellings at Dam No. 37, Ohio River.

TELEPHONE SYSTEM.—Delaware, Ohio.—Bids will be received at the office of the Board of Trustees of the Girls' Industrial School until Feb. 16 for the necessary labor and materials for the installation of an intercommunicating telephone system at the home. Each bidder is to provide plans, specifications and estimates.

EXCAVATING CHANNEL.—Newark, Ohio.—The County Commissioners of Licking County, Newark, will receive bids until Feb. 15 for excavating a channel, about 700 ft. long, near the site of the Coffman Bridge, in Newton Township, to restore the creek to its original bed, requiring about 2,200 cu. yds. of excavating. The plans and specifications are on file and may be seen at the office of C. L. Riley, County Audr., or Fred S. Cully, County Surv.

DOCK.—Evansville, Ind.—The Evansville Sand & Gravel Co. will do its own work on the proposed concrete dock on the river front. Estimated cost, $50,000.

PARK.—Frankford, Ind.—The city has purchased a site of 100 acres for a public park. The Park Board will soon ask for bids for landscape work and the construction of buildings.

GRAIN ELEVATOR.—Frichton, Ind.—The Walker & Chambers Grain Co. will rebuild its large grain elevator recently destroyed by fire.

DITCHES.—Greenfield, Ind.—Wright Boring, Drainage Comr., will receive bids until 2 p. m., Feb. 11, for the construction of two ditches in Hancock County.

COAL DOCKS.—Greensburg, Ind.—The Cleveland, Cincinnati, Chicago & St. Louis Ry. Co. will soon let the contract for the construction of extensive coal docks in this city on the site of docks recently destroyed by fire. Estimated cost, $40,000.

DITCH.—Plymouth, Ind.—The survey for the Morgan Ward Ditch in Tippecanote Township, Marshall County, is being made by William Shoonover, County Engr. Bids will be asked as soon as the survey is completed.

CEMENT.—Ann Arbor, Mich.—The contract for furnishing Portland cement to the city, bids opened on Jan. 18, has been awarded to the PEERLESS PORTLAND CEMENT CO., Union City, Mich., at $1.05, net.

PASSENGER STEAMER.—Detroit, Mich.—The Detroit & Cleveland Navigation Co., A. A. Schantz, Gen. Mgr., Detroit, have plans completed for the new $1,500,000 passenger steamer "City of Detroit." Bids will be received until Feb. 4, 1911, steamer to be delivered for service in 1912.

STEAM YACHT.—Detroit, Mich.—E. L. Ford, Ford Bldg., Detroit, has closed a contract with the SEABURY CO., of Morris Heights, New York, for the construction of a new ocean-going steam yacht, to be delivered to Mr. Ford by Feb. 1, 1912. The boat will be of single-screw type, 200 ft. long and 25 ft. beam, and is to make 16 knots per hour. Cost, $100,000.

STEAMER AND BARGE.—Wyandotte, Mich.—The Standard Oil Co. has placed orders for building a new oil steamer and barge, each to be 260 ft. over all, 43 ft. beam and 23 ft. deep. The steamer will have a capacity of 800,000 gallons, and the barge a capacity of 1,000,000 gallons. The steamer will have triple-expansion engines and two Scotch boilers, 14½ ft. and 11½ ft. long. The two vessels will cost $600,000.

PILE CONSTRUCTION REPAIRS.—Chicago, Ill.—The lowest bid for pile construction repairs has been submitted to the city by the FitzSimons & Connell Co., 131 La Salle St., Chicago, at the following prices:

2,550 lin. ft. of pile at 22 cts. per ft.; 4,500 lin. ft. pile chain at 24 cts.; 3,000 lbs. of boat spikes at 40 cts. per lb.; 1,500 hours' use of pile driver, crew and scow at $6.50 per hour.

WOVEN-WIRE FENCE.—North Chicago, Ill.—Bids will be received until noon, Feb. 15, by the Bureau of Navigation, Navy Dept., Washington, D. C., for a woven-wire fence at the naval training station, Great Lakes, North Chicago. R. F. Nicholson is Ch. of Bureau.

*BREAKWATER, ETC.—Milwaukee, Wis.—Bids will be received until noon, Mar. 1, by Maj. Charles S. Bromwell, Corps Engrs., U. S. A., for building a crib breakwater, crib and pile pier, and concrete superstructure at Manistique Harbor, Mich.

FURNACE, ETC.—Watertown, Wis.—Bids will be received until 11 a. m., Feb. 10, by the Commanding Officer, Watertown Arsenal, Watertown, for furnishing and installing at the Watertown Arsenal a 15-ton acid-tipping open-hearth furnace and necessary changes in craneways and buildings.

DREDGING.—Clarinda, Iowa.—Bids were received as follows on Jan. 24 by the Commissioners of Page County for 650,395 cu. yds. of dredging in Drainage District No. 8, Page County: Engert & DePorg, Winansac, Ind., 10 cts.; C. H. Sternberg & Son, Chicago, Ill., 9.12 cts.; Fred. M. Crane Co., Council Bluffs, Iowa, 9.5 cts.; R. J. Phelps, Carbon Cliff, Ill., 10.5 cts.; Michigan Dredging Co., Lawton, Mich., 10 cts.; Wolcott Dredging Co., Wolcott, Ind., 9.95 cts.; Dunnigan & Briggs, Shenandoah, Iowa, 9.45 cts.; O. P. HERRICK, Des Moines, Iowa, 8.99 cts. (awarded contract). A. S. Van Zandt is Engr.

DRAINS.—Garner, Iowa.—Bids will be received until Feb. 8 by W. L. Finkin, County Audr., Garner, for constructing drains in Drainage Districts Nos. 1 and 2, about 1,052,500 cu. yds., clay tile to be used, all above 12 ins. to be vitrified tile.

DITCH.—Cambridge, Minn.—The contract for constructing ditch No. 8, including 112,659 yds. of excavation, twelve acres of clearing, the building of two new and rebuilding of three old bridges, has been awarded by the county to O. B. OLSON, of Minneapolis, Minn. G. C. Smith is County Audr., Cambridge.

SEWER BRICK, ETC.—Minneapolis, Minn. Henry N. Knott, City Clk., will receive bids until 7.30 p. m., Feb. 10, for furnishing the city with sewer brick, special castings and vitrified clay pipe.

STEEL CULVERT PIPE.—Minneapolis, Minn.—Bids will be received until Feb. 6 by A. P. Erickson, County Audr., Minneapolis, for furnishing 50 tons old or new steel culvert pipe or corrugated steel culvert pipe.

DREDGING, FILLING.—Minneapolis, Minn.—Bids for dredging in Lake Calhoun and for filling low lands and boulevard adjacent were received by the Board of Park Commissioners, Minneapolis, on Jan. 21. The estimated amount of material to be moved is 900,000 cu. yds. The bids follow: La Cruse Dredging Co., 2103 Colfax Ave., South, Minneapolis, 14½ cts.; J. R. Johnson, Excelsior, Minn., 16 cts. J. A. Ridgway is Secy. Bd.

DITCH.—Moorhead, Minn.—The Board of Commissioners of Clay County has let the contract to SWANSON BROS., Moorehead, at $7,257, for digging and constructing ditch No. 25. A. O. Houglum is County Audr.

DITCH.—St. Paul, Minn.—The State Drainage Commission has received the following bids for the construction of ditch No. 89, 14 miles long, in the western part of St. Louis County: A. C. DAVISSON, Rochester, Ind., 8.95 cts. per cu. yd. (awarded contract); Forrestal & Feyen, St. Paul, 13 cts.; Standard Drainage Co., Windom, Minn., 13 cts.; George A. Ralph is State Drainage Engr., St. Paul.

DITCHES.—Warren, Minn.—A. G. Lundgren, County Audr., will receive bids until 2 p.m., Feb. 7, for the construction of county ditch No. 22, approximating 100,486 yds. of excavation and estimated to cost $10,048; and until 4 p. m., Feb. 3, for the construction of ditch No. 15, approximating 301,168 yds. of excavation and estimated to cost $30,116.

TILE DRAINS.—Alexandria, S. Dak.—Bids were received on Jan. 28 by M. Volz, County Audr., for constructing tile drains in Drainage District No. 6, consisting of 7½ miles of 5 to 24-in. tile drain. Contract has been awarded to CHRIS. AXELSON, Clear Lake, Iowa. Estimated cose, $15,000.

FIRE WAGON.—Helena, Mont.—Bids will be received by J. A. Mattson, City Clk., until 8 p. m., Feb. 29, for one combination automobile fire wagon, capable of carrying 2,000 ft. of hose and one 35-gallon chemical tank.

DRAINAGE CANAL.—Jonesboro, Ark.—Bids were received on Jan. 16 by J. H. Burke, Engr., Drainage Dist. No. 6, of Craighead County, for constructing a canal and improvements in the drainage district, the canal to be 35,000 ft. long, 18 ft. wide at bottom and 24 ft. at top and an average depth of 7 ft., and about 183,000 cu. yds. of material to be removed. The contract has been awarded to ENGLE BROS., Lake City, Ark., at 11.75 cts. per cu. yd. List of bidders noted on Jan. 12.

IMPROVEMENT OF RIVER.—Brenham, Tex.—The Commissioners of Washington County, it is reported, have authorized an issue of $57,000 of bonds for the improvement of the Brazos River to prevent overflow between Old Washington and Chappell Hill.

WHARVES, ETC.—Houston, Tex.—The contract has been awarded by the International & Great Northern Ry. Co. to C. G. PATTON, Houston, for the construction of wharves and warehouses here. Estimated cost, $50,000.

IMMIGRATION STATION.—Galveston, Tex.—Bids will be received until 2 p. m., Feb. 11, by Alfred Hampton, Inspector-in-Charge, Immigration Service, Galveston, for the necessary labor and materials for the construction of a building on Pelican Island, Galveston Harbor, for use as immigration station.

CEMENT PLANT.—Bellingham, Wash.—Balfour, Guthrie & Co. will erect a large cement plant near here. The company has acquired extensive clay beds near Ferndale, as well as 1,200 acres of lime deposits near Kendall. It is reported that work will commence at once on the plant.

WHARVES.—Seattle, Wash.—The Oregon & Washington R. R. Co., J. R. Holman, Asst. Gen. Mgr., Seattle, is planning for the construction of wharves at Railroad Ave., South, and Weller St. Estimated cost, about $400,000.

DREDGING.—Seattle, Wash.—Bids for dredgind and excavating a portion of the Lake Washington Canal, between the spillway at Lake Union and the street-car bridge across Salmon Bay were received on Jan. 19 as follows: Holt & Jeffrey, 30 cts. per cu. yd.; Erickson Construction Co., 45 cts.

FIRE ALARM BOXES.—Spokane, Wash.—Bids will be received until Feb. 10 by John Gifford, City Purchasing Agt., for 25 fire alarm boxes, to be non-interfering successive type with key guards attached.

OIL STORAGE TANK, ETC.—Fort Mason, Cal.—Bids were received by Maj. George McK. Williamson, Constr. Q. M., U. S. A., Fort Mason, on Jan. 19, as follows, for the construction of an oil storage tank, pipe line, pumps, motor, etc., at Fort Winfield Scott: (a) construction complete; (b) bidders plans: A. L. Chambers, 624 Walsworth Ave., Oakland, Cal., (a) $23,350, (b) $19,635; Butte Eng. & Elec. Co., 683 Howard St., San Francisco (a) $27,220; K. Ehrhart, 1051 Monadnock Bldg., San Francisco (b) $19,400; H. S. Tittle, 229 Mianna St., San Francisco (a) $27,775, (b) $26,443; R. Dalziel, 218 First St., San Francisco (a) $23,193, (b) $21,250; Duncan Harrelson Co., 1407-08 Chronicle Bldg., San Francisco (a) $25,095; Pringle Dunn & Co., 338 Pine St., San Francisco (a) $24,100; Locke Foundation Co., 1107 Chronicle Bldg., San Francisco (a) $34,890.

DREDGER.—Los Angeles, Cal.—The NORTH AMERICAN DREDGING CO. has been awarded the contract for furnishing a 15-in. suction dredger, at $57,400, for use in the Imperial Valley. F. C. Finkle, 628½ South Spring St., Los Angeles, is Consult. Engr.

CULVERTS, WEIR, CONDUITS.—Los Angeles, Cal.—Dessery & West, Consult. Engrs., Union Trust Bldg., have prepared plans for the construction of reinforced-concrete culverts, a concrete weir and concrete conduit for the American Beet Sugar Co., Oxnard, Cal.

IMPROVING PARK.—Los Angeles, Cal.—Wilbur D. Cook, Jr., Wright & Callender Bldg., Los Angeles, is preparing plans for landscaping and improving Agricultural Park. The work will include sunken gardens, fountains, walks, pergolas, colonades, etc. A large part of the work will consist of excavating, grading, brick, cement and artificial stone work. Under a contract with the Sixth District Agricultural Park Association, the city is required to spend $10,000 each year in improving the property. Estimated cost, $100,000.

HOOK AND LADDER TRUCK, ETC.—Los Angeles, Cal.—Bids will be received until Feb. 14 by the city for one motor-propelled city-service hook and ladder truck, with 80-HP. motor, air or water cooled; one motor-propelled combination chemical and hose wagon, 80 HP., air or water cooled; three chassis, motor, 50 HP. Lorin A. Handley is City Clk.

ELEVATOR.—Los Angeles, Cal.—The Board of Supervisors will receive bids until 2 p. m., Feb. 6, for furnishing and installing hydraulic plunger passenger elevator in hatchway of the present inside elevator of County Court House. H. J. Lelande is County Clk.

AUTO CHASSIS.—Redlands, Cal.—All bids for furnishing an auto chasses for fire apparatus of the city, have been rejected. New bids will be received until Feb. 13.

CONCRETE PIER.—Santa Monica, Cal.—J. L. Fisher is planning the erection of a concrete pier, 300 ft. long by 90 ft. wide, to contain a dozen cottages of six to eight rooms.

WHARF EXTENSION.—St. Famille, Que.—Bids will be received until Feb. 20 by the Public Works Department, R. C. Desrochers, Secy., Ottawa, Ont., for the construction of an extension to the wharf at St. Famille, Island of Orleans, Montmorency County, Que. Plans from A. R. Decary, Dist. Engr., Post Office Bldg., Quebec, Que.

BOILER.—Ottawa, Ont.—Bids will be received by G. J. Desbarats, Deputy Minister of Marine, until noon, Feb. 15, for the supply of a steam boiler for the fisheries protection steamer "Curlew."

ASPHALT.—Winnipeg, Man.—Bids will be received by M. Peterson, Secy. Bd. of Control, until 11 a. m., March 1, for the supply of from 1,000 to 1,500 tons of asphalt.

STEAMERS.—Winnipeg, Man.—The Hyland Navigation Co., Merchants' Bank Bldg., has increased its capital from $200,000 to $1,000,000, and proposes to build several additional steamers for the Red River traffic this year. John Hyland is Pres.

TELEPHONE EXCHANGE.—Kitsilano, B. C.—EMITH & SHERBOURNE, Vancouver, B. C., have been awarded the contract for the new telephone exchange here for the British Columbia Telephone Co.

MARINE DEPOT.—Prince Rupert, B. C.—The contract for a new marine depot has been awarded to the PACIFIC CONSTRUCTION CO., of Victoria, B. C., at $150,000.

STEEL TUG.—Vancouver, B. C.—Bids will be received by R. C. Desrochers, Secy. Dept. Pub. Wks., Ottawa, Ont., until 4 p. m., Feb. 18, for a steel tug.

WHARVES.—Vancouver, B. C.—It is reported that the Grand Trunk Pacific Ry. Co. has secured control of the waterfront property at the foot of Main St. for the purpose of building wharves for the steamship trade of the Pacific Ocean.

VESSELS.—Victoria, B. C.—A whaling company is being organized by Seattle parties to operate in Alaskan waters. Contracts have been awarded to the MORAN SHIPYARDS for the building of two steam whalers similar in type to the vessels of the Canadian Northern Pacific Whalers Co., at $100,000 each.

FIRE APPARATUS.—Edmonton, Alta.—The City Commissioners will shortly purchase the following trucks for the fire department: Motor chemical and hose wagon; motor car; one aerial ladder; 3,000 ft. of hose and a lifesaving net.

TELEPHONE LINE.—Edmonton, Alta.—The Provincial Government will build a telephone line from Athabasca Landing to Fort McMurray, a distance of 210 miles due north. A branch will also be built from the Landing to the Peace River Country.

TELEPHONE SUPPLIES.—Regina, Sask.—Bids will be received until noon, Feb. 9, by S. P. Porter, Deputy Minister of Telephones and Railways, for the supply of insulators, toppins, guy wire, copper sleeves, cross-arms, galvanized iron wire, pole line hardware, etc., for the telephone department for the present year.

JETTIES, DREDGING.—Tampico, Mex.—The Federal Government has made an appropriation to extend the jetties at the mouth of the Panuco River at Tampico, by which the present deep water harbor is formed, further into the sea for a distance of about 700 ft., and for dredging the bar at the mouth of the river. The stone breakwaters will be concreted on the sides and top and a walk constructed upon the top, in order that they may serve as pleasure and fishing piers. The government has also appropriated several million dollars for the improvement of the harbor at Topolobampo, on the Pacific coast, which is the Mexico terminus of the Kansas City, Mexico & Orient R. R., and for improving the harbor of Mazatlan, which was recently reached by the Southern Pacific of Mexico. Announcement has been made that the government has made an appropriation of $5,000,000 Mexican money for the construction of jetties at the mouth of the Soto la Marina River and the establishment of a deep water port at Soto la Marina, a town situated about 150 miles north of Tampico, about midway between this city and Matamoros.

U. S. POSSESSIONS.

DREDGING.—Hawaii.—The contract for dredging at the naval station, Honolulu, has been awarded to the STANDARD AMERICAN DREDGING CO., San Francisco, Cal., at 58.5 cts. per yd. Total, about $10,000.

CAISSON.—Hawaii.—Bids will be received by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., until Feb. 11, for furnishing a steel caisson for the naval station, at Pearl Harbor.

REINFORCEMENT MATERIAL.—Panama.—Bids will be received until 10.30 a. m., Feb. 17, by Capt. F. C. Boggs, Corps Engrs., U. S. A., Gen. Pur. Officer, Isthmian Canal Comn., Washington, D. C., for rod and angle reinforcement material for concrete piles, brake shoe keys and hose.

LOCK GATE RECESS COVERS.—Panama.—Bids will be received by Capt. F. C. Boggs, Corps Engrs., U. S. A., Gen. Pur. Officer, Isthmian Canal Comn., Washington, D. C., until 10.30 a. m., Feb. 24, for lock gate recess covers, including structural material, castings, etc.

LUMBER.—Panama.—Bids were received as follows, on Jan. 31, by Capt. F. C. Boggs, Corps Engrs., Gen. Pur. Officer, Isthmian Canal Comn., Washington, D. C., for 461,000 ft., B. M., of lumber, long-leaf yellow pine, to be delivered at Colon, or Douglas fir, to be delivered at Port of Ancon: Balfour-Guthrie Trust Co., Seattle, Wash., $10,686; (fir); Bay Shore Lumber Co., Mobile, Ala., $12,368; Comyn-Mackall Co., San Francisco, Cal., $10,571 (fir); G. Elias & Bro., Buffalo, N. Y., $12,873; Ensign Lumber Co., Jacksonville, Fla., $13,053 (pine or fir); W. D. Gill & Son, Baltimore, Md., $14,891; D. L. Gillespie & Co., Pittsburg, Pa., $14,276; J. K. Joice, Chicago, Ill., $15,051; S. E. [illegible]lor & Co., Gulfport, Miss., $12,967; Ro[illegible] Lumber [illegible] Veneer & Box Co., New Or[illegible] La., $14,389; Salmen Brick & Lumb[illegible] New Orleans, La., $13,279; W. R. [illegible] Co., San Francisco, Cal., $11,007 (fir[illegible] bids are on pine, to be delivered a[illegible] unless otherwise stated.

FOREIGN CONTRACTS.

(To insure prompt attention [illegible] on consular business should be a[illegible]d to The American Consul at ——. Such letters are opened and [illegible]lied to by whoever may be in charge [illegible] the office. If addressed to the consul, [illegible]ually; letters are forwarded to him, a[illegible]d, should he be absent, and a delay [illegible]ervenes. If ,in the meantime, he sh[illegible] have gone out of office, the matter may [illegible] escape attention.)

AQUEDUCT.—Cuba.—In a m[illegible] to Congress on Jan. 18, President [illegible] recommends the immediate appropria[illegible] $2,000,000 for a Santiago aqueduct.

TELEPHONE MATERIAL.—[illegible]—Bids will be received until Feb. 2[illegible] installing a telephone system between R[illegible] Janeiro and Sao Paulo and other points [illegible]out telephone service. Bids should be addressed to the Directoria Geral do Expe[illegible] Ministerio da Viacao e Obras Publicas, Rio de Janeiro.

RAILWAY.—Spain.—Bids will be received until Mar. 16, by the Direccion General de Obras Publicas, Ministerio de Fomento, Madrid, for the construction of a railway from Madrid to Utice.

BRIDGE.—Spain.—Bids will be received until April 1, by the Direccion General de Obras Publicas Ministerio de Fomento, Madrid, for the construction of a bridge across the Elsa River in the Province of Leon.

RAILWAY.—Chile.—Consul Alfred A. Winslow, Valparaiso, reports the Chilean and Argentine Governments have agreed on a plan to connect the two Republics by another railway some 400 miles north of the present Transandean Ry., between Valparaiso and Buenos Aires. It is proposed to have this line of the same gage all the way, thus avoiding the transfer of freight as is the case via the present Transandean line. This line would require a tunnel of 1,640 ft. to pierce the Andes at the point selected, and only about 36 miles of road will be needed to connect it with the Longitudinal Ry. now building and the port of Caldera, which would bring the farms of Argentine much nearer the nitrate fields of Chile than the present route. The Chilean section would open up a country now occupied by 30,000 people, which number would be greatly increased, since that part of the country is rich in minerals.

ELECTRIC TROLLEY SYSTEM.—West Indies.—Consul Chester W. Martin reports that the Bridgetown Tramways Co. has been sold to an American syndicate which will convert this small 9-mile mule power line into an extensive electric trolley system to various parts of the island of Barbados.

CONTRACT PRICES.

SEWER.—Louisville, Ky.—Bids were received by the Commissioners of Sewerage on Jan. 20 for installing the Second St. sewer, from: (A) James Ferry & Sons, Inc., Pittsburg, Pa.; (B) Henry Bickel Co., Louisville; (C) C. T. McCracken & Co., Columbus, Ohio; (D) L. W. Hancock Co., Louisville; (E) B. C. Milner & Sons Co., Louisville. The itemized bids were as follows:

SEWER, LOUISVILLE, KY.

	A	B	C	D	E
1,425 lin. ft. earth excavation and refilling	$9.30	$10.00	$11.20	$10.80	$15.00
1,065 lin. ft. earth excavation and refilling	7.10	8.50	6.30	7.00	13.00
30 lin. ft. branch sewers	10.00	6.50	25.00	7.00	15.00
800 cu. yds. concrete masonry	11.50	11.00	11.00	11.50	15.00
21 cu. yds. concrete in manholes and sewers	15.00	18.00	15.00	20.00	13.00
5 sq. yds. brick masonry	3.50	3.00	5.00	5.00	4.00
10 cu. yds. excavation below masonry	3.00	2.00	4.00	4.00	2.30
10 cu. yds. gravel refilling below masonry	3.00	1.50	4.00	4.00	2.30
Vitrified pipe (lump sum)	275.80	220.64	275.80	275.80	297.86
300 lin. ft. 8-in. underdrain	.35	.35	.35	.35	.35
Cleaning up (lump sum)	500.00	0.00	150.00	500.00	1,300.00
Totals	$31,161	$32,541	$32,792	$33,241	$47,275

SEWERS.—Momence, Ill.—Bids were received by the Board of Local Improvements on Jan. 14, for constructing concrete and vitrified clay pipe sewers, from: (A) Kinney & Vineyard, Evansville, Ind.; (B) Langon & Clifford, Waukegan, Ill.; (C) A. C. Schrieter, Manitowoc, Wis.; (D) William Moran & Co., Joliet, Ill.; (E) Avery, Alpine & Co., Kankakee, Ill.; (F) Henry McMullin, Kankakee, Ill.; (G) Union Engineering Co., Chicago, Ill. H. D. Hallett, of Aurora, Ill., is Engr. The item bids were as follows:

SEWERS—MOMENCE, ILL.

	A	B	C	D	E	F	*G
1,770 lin. ft. 36-in. concrete pipe	$3.20	$3.20	$4.10	$3.50	$3.50	$3.25	$3.22
860 lin. ft. 30-in. concrete pipe	2.90	2.65	3.00	3.00	3.00	2.25	3.48
800 lin. ft. 24-in. concrete pipe	2.20	2.25	2.37	2.00	2.00	2.00	2.50
410 lin. ft. 24-in. vitrified pipe	1.80	1.83	2.38	2.00	1.90	2.10	2.44
800 lin. ft. 18-in. vitrified pipe	1.10	1.34	1.62	1.65	1.75	1.56	1.84
3,875 lin. ft. 15-in. vitrified pipe	.90	1.06	1.00	1.33	1.30	1.45	1.42
6,825 lin. ft. 12-in. vitrified pipe	.70	.85	.93	1.33	1.20	1.30	1.26
6,925 lin. ft. 10-in. vitrified pipe	.70	.86	.88	1.03	1.15	1.15	1.21
2,225 lin. ft. 8-in. vitrified pipe	.60	.70	.85	1.03	.80	1.10	1.10
9 manholes & flush tanks, combined	48.00	65.00	50.00	50.00	55.00	85.00	[illegible]
53 manholes	25.00	28.00	30.00	26.00	30.00	35.00	[illegible]
98 catch basins	25.00	30.00	30.00	26.00	30.00	35.00	[illegible]
25 cu. yds. concrete	6.00	6.50	9.00	9.75	9.00	8.00	7.00
1 M. ft. B. M. lumber in place	20.00	30.00	35.00	25.00	...	...	15.00
1 cu. yd. extra excavation	1.50	1.50	.65	1.75	.75	3.00	.30
200 lin. ft. 20-in. iron pipe	2.50	2.70	3.00	2.70	3.75	5.10	3.15
Totals	$30,862	$34,830	$38,162	$41,357	$41,526	$43,572	[illegible]

*Prices taken from lump sum bid.

CURRENT PRICES OF ENGINEERING MATERIALS

Supplement to **ENGINEERING NEWS**, appearing in the First Issue of Each Month. New York, February 2, 1911.

PRICE CHANGES AND THE BUSINESS OUTLOOK.

With a continued accumulation of stocks of many of the materials used by engineers, such as steel, copper, cement and petroleum, it would appear as if there were risk of a general over-production and consequent stagnation of business. Nevertheless in the staples of greatest public use, such as food stuffs and textile materials, there are no great surplus accumulations. Then too, in spite of the enormous production of gold, there is no plethora of investment funds. Adjustments are being made by curtailing the production of those materials now in too plentiful supply and the economic equilibrium will be restored in time.

Lower quotations have been named for pig iron, cast-iron pipe and a number of minor steel products. At the same time there has been an advance of $1 a ton in wire products and better prices are being obtained for old materials. Railway ties are lower and the lumber market is unsettled.

A feature of decided importance noticed during the last few weeks is the successful sale of securities by the railways in large blocks. The prices, to the buyers, have been attractive and one railway in particular has resorted to the expedient of issuing short-time securities in hope of a better bond market at some future day. Minor railway companies, who have chosen to sell their bonds at a low figure, have had no difficulty in obtaining funds. The largest bond sale ever held by the City of New York resulted in a large over-subscription to the $60,000,000 issue. The sale can hardly be called a pronounced success for the rate of interest was high and the price obtained was low.

The cement trade is groping in the dark. A cut in the price of 10 cts. a barrel early in the year, brought the price down to the level of last year. Consumers hesitate to buy in large quantities hoping to obtain even lower prices.

Railway work planned for the coming season is increasing in amount. The Pennsylvania having completed its extensive improvements in New York is turning its attention to the improvement of its low grade freight line in Pennsylvania and double-tracking as well as grade crossing elimination in Indiana and Ohio. The Louisville & Nashville is undertaking an important piece of double-tracking.

The announcement that the Harriman lines will build 1,673 miles of second track is the most important project in railway construction since the panic of 1907.

When an important group of railway financiers decide that the time is propitious for such extensive expenditures it gives confidence to the investing public as well as officials of other railways. Some important developments seem to be pending among the lesser Western roads.

Additions to existing water supplies are being made all over the country and in the middle West there is a large amount of new work under consideration.

The railroads have been ordering rails with some liberality and numerous orders for cars and locomotives have been booked by the equipment companies.

The electrical industry is active in nearly all departments.

New building work in New York City is below normal although two new hotels are planned for the Herald Square district and another "highest building" will be built on lower Broadway.

LABOR.

The employment agencies report the demand for labor less satisfactory than for a long time. As far as outside labor is concerned, there is almost no inquiry. In factory help the supply is ample and there seems to be considerable shifting of employees, principally laying off inefficient hands where more experienced or steadier workmen can be secured. There has been no wholesale laying off of men, except in the steel trade and among the cotton mills, but there has been quite a little part-time work resorted to. The tanners have closed down a number of their tanneries. Few complaints are heard regarding distress or poverty among workmen except those habitual mendicants who are always seeking work and hoping never to find it. The foreign-born population apparently takes care of its own poor, and there are few applications for relief in that quarter.

The return tide of immigration, as noted in last month's issue, is not quite as pronounced, but the immigration authorities are turning back a great many west-bound steerage passengers owing to the lack of employment in this country.

For such work as is offered, wages are unchanged at $1.60 per day.

CEMENT, LIME AND BRICK.

PORTLAND CEMENT.—Business is more active, but this is not due to the cut in price. It is doubtful if a cut of 10 cts. a bbl. ever brings much business. If the cut on January 3 had been for a drastic one, say 20 to 30 cts. a bbl., it might have brought business, and to the cement makers would have quickly brought about a readjustment. This would have meant a price of 50 to 60 cts. a bbl. in bulk at the mill, a figure which probably no cement mill in the country can produce at. As it is, with the present price of 80 cts. per bbl. in bulk at the mill, most of the modern mills can come out whole and some of them make a little money, but it is not a healthy condition in trade. Sales during the month have largely been on account of the favorable weather, and the prospects are that an increased volume of business will continue during the first half of the year.

Quotations in New York are from $1.43 to $1.53 per bbl. with an allowance of 10 cts. for bags returned; in Boston, the quotation is $1.52; Buffalo, $1.50; Philadelphia, $1.40. On the Pacific Coast the prices range from $2.10 to $2.40 per bbl. Eastern prices represent a quotation of about 90 cts. per bbl. in bulk at the mill.

Imported cement shows little or no change and is in light demand at $2.42 for Alsen's and $2.43 for Dykerhoff's.

NATURAL CEMENT.—Prices continue steady and the demand is small. In New York, natural cement is quoted at 80 cts. per bbl. and in Boston, $1.05.

BRICK.—Prices are practically unchanged from last month, $5. to $5.25 being quoted. Covered cargoes are held at $5.50. These prices are for Hudson River common. Raritan River brick are about $5.75 in New York and $6.75 in yard at Newark. A count has been made of the brick in various yards on the Hudson, and it is estimated that the total brick on hand amounts to 350,000,000. This is about 140,000,000 more brick than at this time last year.

White enameled brick are held at the unchanged price of $60 per thousand for the American size (8¾ × 2¼-in. enameled surface by 4⅛-in. bed), and $70 to $75 for the English size (9 × 3-in. enameled surface by 4½-in bed). These prices are f. o. b. Perth Amboy.

PLASTER BLOCKS.—For large lots, prices are as follows.

	Weight, lbs. per sq. ft.	Price, cts. per sq. ft.
2-in.	7	6
3-in.	8½	6½
4-in.	11	7¼

These blocks are made 32-in. long by 13½-in. wide, containing 3 sq. ft. of surface. The 2-in. blocks are solid, but the others are hollow.

Plaster boards, ⅝-in. thick, are 16 cts. per sq. yd.

LIME.—The following prices are for lots of 500 bbls., delivered in New York City; State common, per bbl., 75 cts.; Rockland-Rockport common, 92 cts.; Rockland-Rockport special, 300 lbs., $1.37; finished, 300 lbs., $1.47; finishing 200 lbs., $1.02, and 350 lbs., $1.62; New Milford, $1.30.

STONE.

BLUE STONE.—This Mid-Winter season is not only the dullest part of the year, but sellers of stone are now more pessimistic than at any other time. There is little doubt, however, that the demand for blue stone will be about equal to that of last year, yet there may be more difficulty in getting the stone out of the quarries than a year ago, owing to the number of quarrymen who have found very good employment on the Ashokan Reservoir.

Prices continue without change, and for delivery, either alongside of dock or f. o. b. cars, New York, are as follows: Flagging, 6 cts. per sq. ft. per in. of thickness; flagging, 2½ to 3-in. thick, that will pass New York City specifications, 18 to 19 cts. per sq. ft. Sewer bottoms, 5 ft. sq. and 3-in. thick, are sold at 25 cts. per sq. ft. Curbing, 5 × 16-in., is 40 cts., and 5 × 24-in., by 5-in. thick, is 60 cts., and 6-in. thick is 65 to 70 cts. per lin. ft., 5 × 20-in. by 5-in. thick is 50 cts.

Promiscuous shapes of building and foundation stone sell at 70 to 75 cts. per cu. ft.

GRANITE.—Quite a little granite has been sold for Winter delivery in New York City and there is a very fair prospect that business will continue satisfactory throughout the remainder of the year. Prices continue without change at 40 to 45 cts. per cu. ft. for promiscuous shapes or run of quarry.

Pink Milford granite is in fair demand and unchanged in price at $1 per cu. ft. for promiscuous shapes.

LIMESTONE.—Prices are unchanged at 85 cts. per cu. ft., delivered alongside of dock, New York. Dressed stone is quoted at $1.25 to $1.50 per cu. ft.

Sandstone in the rough is 80 cts. to $1 per cu. ft.

INTERIOR STONE.—Slate flooring, 1-in. thick, can be had at 20 cts. per sq. ft. for the common or ribbon variety. Clear black sells at 35 to 40 cts., and the same price is asked for Vermont. A combination of slate and marble flooring is 30 cts. per sq. ft.

Marble floor, finished ready to lay, of Vermont marble, is 50 to 70 cts. per sq. ft.; Italian marble, 70 to 90 cts. Tennessee marble can be had at 65 cts. Ordinary stair work, such as slate steps, are quoted at 24 cts. per sq. ft.

CRUSHED STONE, SAND AND GRAVEL.

CRUSHED STONE.—There is practically no demand for stone, nor has there been for some time. The largest dealers in stone report that few inquiries are in the market for delivery during the coming year, although some contractors are making agreements for the stone which is to be delivered throughout the year. Prices are nominal and without change as follows:

For 1½-in. stone, 90 cts. to $1.00 a yd. is quoted; ¾-in. stone, 95 cts. to $1.10, and screenings are also sold at 95 cts. to $1.10. These prices are for full cargo lots of 500 cu. yds., delivered alongside of dock, New York City.

In Boston, the following prices are quoted, f. o. b. cars at point of shipment, per net ton; 2½-in., 65 cts.; 1½-in., 75 cts.; ¾-in., 90 cts.

SAND.—In the sand market there is some unrest. One of the largest shippers of sand is quoting 25 cts. per cu. yd. for sand delivered in New York and has almost an unlimited quantity for sale at that price for nearby delivery. For contracts running throughout the year, special arrangements are made. We learn of one contract consummated within the last week for a year's requirement to be delivered when needed at slightly above 30 cents. Other contracts have ranged somewhat higher. Sand dealers report that the outlook is very satisfactory, and a good trade is anticipated throughout the year.

One dealer is quoting 35 to 40 cts. per cu. yd. in scow loads along side of dock.

White quartz sand is 60 cts. per cu. yd., and white quartz grit, 75 cts. per cu. yd. All of these prices are for delivery alongside of dock, New York, and for full cargo lots of 500 yds.

In Boston, sand sells at 35 cts. per cu. yd., to which is added the freight of about 50 cts.

GRAVEL.—There is little or no gravel coming into this market, but the inquiries are large. Prices are unchanged at 75 to 85 cts. per cu. yd, delivered alongside of dock. These prices are for cargo lots of 500 cu. yds.

White quartz roofing gravel is $1.25 to $1.35 per cu. yd.

IRON AND STEEL.

PIG IRON.—Business during the month of January was larger than in the previous month, and numerous orders were taken for lots of from 1,000 to 5,000 tons for nearby delivery. Near the end of the month, the volume of business decreased, and altogether the total tonnage sold was much smaller than in the corresponding month last year. Then, too, the increased volume of business taken did not make it necessary for any idle furnaces to resume operations, showing that there is quite a stock of unsold iron. Coincident with the increased demand, and probably the cause of it, was some shading of prices. Prices are lower than any time since the decline started. No. 2 Southern founrdy iron is now selling at $15.50 in Chicago. The lowest price recorded in the last ten years was in 1904 when it sold at $13.75. In the interval since 1904 there has been a vastly different value placed on iron ore. Coke and other raw materials have likewise advanced and the labor cost has increased out of all proportion to the difference between the prices of iron to-day and in 1904. The total production of pig iron during the year 1910 is estimated at 27,275,000 tons, being larger by about 1,500,000 tons than the production of 1909, the previous high record. It is likewise slightly less than double the production ten years ago. As stated, prices are somewhat lower.

For lots of 100 gross tons and over f. o. b. points named quotations are as follows: Cincinnati, Southern foundry No. 1, $14.75 to $15.25; Southern foundry No. 2, $14.25 to $14.75; Southern foundry No. 4, $13.50 to $14. In Philadelphia, Eastern Pennsylvania No. 2 is $15.50 to $15.75; Eastern Pennsylvania No. 2 plain, $15 to $15.25. In Chicago, Northern foundry No. 2 is $15.50 to $16, a decline of 50 cts. compared with last month; Southern foundry No. 2, $15.35 to $15.85. In Pittsburg, Bessemer is $15.40 to $15.90 and basic is $14.15 to $14.40. **These quotations include the 90-ct. freight rate from the** Valley to Pittsburg. In New York, Northern foundry No. 2X is $15 to $15.25, Southern foundry No. 2, $15 to $15.25. In Birmingham, Southern foundry No. 2 is unchanged at $11.50 to $12.

STEEL RAILS.—Business has been active and some very good contracts for rails have been closed during the month. The New York Central lines have taken altogether about 175,000 tons; for the most part these will be open-hearth rails, although some Ferro Titanium rails are included. The Pennsylvania order will amount to about 150,000 tons. The Southern Ry. has ordered 25,000 tons; the Western Maryland about 10,000 tons and an anthracite coal road about 3,000 tons. Three export contracts are worthy of mention. The Maryland Steel Co. has booked, for lines in Argentine, 15,000 tons; the Steel Corporation has sold to lines in the same country 5,000 tons, and a Mexican order has been closed for 5,000 tons.

All rails are now quoted in cents per pound, the quotation being as follows for lots of 500 tons and over. Standard sections, 50 to 100 lbs., per yard, 1.25 cts. per lb.; 40 to 45 lbs., 1.16 cts.; 30 to 35 lbs., 1.20 cts.; 16, 20 and 25 lbs., 1.21 cts.; and 12-lb. rails, 1.25 cts. Relaying rails are unchanged in New York, at $20.50 to $21.50 per gross ton. In Chicago, standard sections, subject to inspection, are $21 to $25 per ton.

TRACK SUPPLIES.—Coincident with the increased orders for rails, business in the line of track supplies has shown some improvement. It is stated, however, that some of the companies ordering rails have not, by any means, covered their requirements for splice bars and spikes.

Prices are as follows: Standard railway spikes, 4½ × 9/16 in. and larger, are 1.50 to 1.60 cts. per lb. Boat spikes and small railway spikes are 1.60 to 1.65 cts. Track bolts with square nuts are 2.40 to 2.50 cts. per lb., and angle bars, 1.50 to 1.65 cts. per lb. in Chicago and Pittsburg.

STRUCTURAL SHAPES.—Some very fair business has been taken for bridge work in the West. The Ohio River bridge at Louisville, 15,000 tons, went to the American Bridge Co., the Northwestern has bought about 5,000 tons, the Norfolk & Western is figuring on 9,000 tons and the Burlington on 3,000. In buildings, the Bureau of Printing Bldg. in Washington is calling for 6,000 tons, the Insurance Exchange, Chicago, calls for 14,000 tons and a new hotel in New York, 12,000 tons. It is said that there is an unusually large amount of business waiting to be closed up in the Chicago market, but this is awaiting new developments.

Prices are without change. The following quotations are named in cts. per lb., f. o. b. Pittsburg: I-beams and channels, 3 to 15-in., 1.40 to 1.45 cts.; over 15-in., 1.55 cts.; H-beams, over 8-in., 1.65 cts.; angles, 3 to 6 in., inclusive, 1.50 cts.; angles over 6-in., 1.55 cts.; zees, 3-in. and over, 1.50 cts.; angles, channels and zees under 3-in., 1.45 base and full extras; deck beams and bulb angles, 1.75 cts.; hand rail tees, checkered and corrugated plates, 2.75 cts.

Chicago store prices in cents per lb. are as follows: Angles, 3 to 6-in., 1.80 to 1.90 cts.; over 6-in., 1.90 to 2 cts.; I-beams and channels, 1.80 to 1.90 cts. In San Francisco, prices from store continue without change at 2.70 cts. base.

CAST-IRON PIPE.—Orders for pipe have been fairly satisfactory and there are numerous additions planned to water works all over the country. This work has been hastened because of the prolonged dry spell of last year. The City of Chicago has awarded 10,000 tons to the leading interest; this company also took 6,000 tons for Portland, Ore. The gas companies in the East have also purchased considerable pipe. Two orders for the Pacific Coast will amount to about 2,000 tons, and Kansas City, Mo., is also in the market for about the same amount. Quotations per net ton are from 50 cts. to $1.50 lower than last month as follows:

Birmingham, Ala., 4 to 6-in., $20 to $20.50; 8 to 12-in., $19.50 to $20; over 12-in., $18.

Chicago, 4-in., $25; 6 to 12-in., $24; 16-in., $23.50.

New York, 6-in., $22.

OLD MATERIALS.—The market is very quiet, but it is noticeable that the leading sellers of scrap are not disposed to make any extensive contracts at present prices. The rolling mills and other purchasers of old materials show no disposition to load up with supplies, but are keeping very close track of the market. So far, the export demand has not materialized and should a better domestic business develop it is felt that there will be no need of exporting material.

Prices in New York per gross ton are as follows: Heavy melting steel scrap, $1.50 to $10.75; No. 1 yard wrought $10.50 to $11.50; No. 1 railroad wrought, $13.50 to $14; pipes and flues, $10.50 to $11; cast borings, $6 to $6.50; machinery cast, broken up, $12 to $12.50; stove plate, $9.50 to $10.

In Chicago the market is less active than in New York, quotations being as follows per gross ton: Re-rolling rails, $13.25 to $13.75; heavy-melting steel scrap, $11.50 to $12; shoveling steel, $11 to $11.50. For such materials as are sold by the net ton quotations are as follows: Miscellaneous railroad wrought, $10.50 to $12; machine shop turnings, $6.50 to $7. No. 1 cast scrap, $11.75 to $12.25; pipes and flues, $8.50 to $9; railroad malleable, $10.75 to $11.25; agricultural malleable, $10 to $10.50.

A firmer tone of prices is noted in the Pittsburg market and some dealers have been approached to sell material for future delivery at prevailing prices. All such orders have been declined. Quotations per gross ton are as follows: Re-rolling rails,

$14.75 to $15; No. 1 foundry cast, $13 to $13.25; No. 2 foundry cast, $12 to $12.25; old grate bars, $10.75 to $11; car wheels, $13.50 to $13.75; cast borings, $8 to $8.25; machine shop turnings, $8.50 to $8.75; bundled steel scrap, $10 to $10.25.

PLATES.—Business has been more satisfactory. One of the largest orders was received by the Carnegie Steel Company for about 35,000 tons from the Canadian Car & Foundry Co. The Pressed Steel Car Co. has given specifications for about 10,000 tons of plate. The car business has been more satisfactory. Several orders have been booked by car builders and while the volume of their business shows a gain the replacements are not up to normal. The Pennsylvania purchased 500 gondolas and 300 box cars. The Lehigh & New England is inquiring for 800 cars.

Prices are unchanged at 1.40 cts. base for wide plates, although some narrow plates have been sold on a basis of 1.35. Plates ¼-in. thick, 6¼ to 100 ins. wide, 1.40 to 1.45 cts.; ¼ to 3/16-in. thick, 1.50 to 1.55 cts.; 3/16-in. and thinner, including No. 8 gage, 1.55 to 1.65 cts.; Nos. 8, 9 and 10 gage, 1.70 to 1.75 cts. All these prices are per lb. f. o. b. mill.

In Chicago store prices are 1.85 to 1.95 cts.

PILING, SHEET STEEL.—Prices are without change at 1.60 cts. per lb. f. o. b. Pittsburg.

STEEL CASTINGS.—Prices continue without change. Open hearth steel castings, weighing from 100 to 500 lbs., are 3½ to 5 cts. per lb. Crucible castings, weighing from 100 to 500 lbs., are 7½ to 9 cts. per lb.

RIVETS.—While the orders received are for small lots there are more of them than a month ago and those who have contracts are specifying more freely against them. Quotations are as follows:—Structural rivets, ¾-in. and larger, 1.90 cts., base; cone head boiler rivets, ¾-in. and larger, 2 cts., base; ⅝-in. and 11/16-in. take an advance of 15 cts., and ½-in. and 9/16-in. take an advance of 50 cts. Lengths shorter than 1-in. also take an advance of 50 cts. Terms are 30 days, net cash, f. o. b. mill.

CASTINGS, GREY IRON.—While there has been more business recently the total volume is far below normal. Building castings are to be had 1.62½ to 2 cts. per lb. depending on the size of the order and shape of the casting. Stair work is 2 to 2.50 cts. per lb. Rough castings such as foundation pieces, sewer work and similar heavy pieces are 1.50 to 1.75 cts. per lb.

FREIGHT RATES.—The freight rates, on finished steel products, from the Pittsburg district, including plates, structural shapes, merchant steel and iron bars, pipe, fittings, plain and galvanized wire, nails, rivets, spikes and bolts (in kegs), black sheets (except planished), chain, etc., are as follows, in cts. per lbs.: Albany, 16; Buffalo, 11; Boston, 18; Baltimore, 14½; Canandaigua, 13½; Cleveland, 10; Columbus, 12; Cincinnati, 15; Chicago, 18; Harrisburg, 14½; Louisville, 18; New York, 16; Norfolk, 20; Philadelphia, 15; Rochester, 11½; Richmond, 20; Scranton, 15; St. Louis, 23; Washington, 14½.

WIRE ROPE.—Prices are unchanged. The discount to the larger trade is 42½ and 5% from list for galvanized, and 50 and 5% from list for bright. The net prices of bright wire rope are as follows:

Diameter, inches.	Price per foot Cast steel.	 Crucible steel.	 Plow steel.
2¾	$1.05	$1.24	$1.46
2½	.85	1.05	1.22
2	.57	.65	.76
1¾	.44	.54	.64
1½	.32	.39	.45
1¼	.23	.28	.32
1	.15	.18	.21
¾	.10	.11	.13
⅝	.07	.09	.10
½	.06	.07	.07

ROOFING, CORRUGATED.—More inquiries have been received and the outlook shows much improvement. Quotations are unchanged and per 100 sq. ft., of roof surface are as follows: Carloads, Pittsburg, No. 28 painted, $1.55; No. 28 galvanized, $2.75. From store New York, No. 24 painted, $3.60; No. 24 galvanized, $4.50; No. 26 painted, $2.75; No. 26 galvanized, $3.75; No. 28 painted, $2.40; No. 28 galvanized, $3.50.

SHEETS.—The leading interest, The American Sheet & Tin Plate Co., is operating about 50% of capacity. This is considerably better than other branches of the steel trade. The independent makers of sheets are also doing a more satisfactory trade.

The following quotations are named: f. o. b. mill in the Pittsburg district.

	Cts. per lb. Black.	 Galvanized.
Nos. 10 and 11	1.85	2.20
Nos. 12, 13 and 14	1.90	2.30
Nos. 15, 16 and 17	1.95	2.45
Nos. 18, 19, 20 and 21	2.00	2.60
No. 22	2.05	2.60
Nos. 23 and 24	2.05	2.70
Nos. 25 and 26	2.15	2.90
No. 27	2.20	3.05
No. 28	2.20	3.20
No. 29	2.25	3.30
No. 30	2.25	3.50

Store prices Chicago are as follows:

	Cts. per lb. Black.	 Galvanized.
No. 10	2.40	2.95
No. 12	2.40	
No. 14	2.45	
No. 16	2.55	3.05
Nos. 18 to 22	2.70	3.20
No. 24	2.75	3.30
No. 26	2.85	3.50
No. 27	2.95	3.65
No. 28	3.15	3.80
No. 30	3.35	4.25

MERCHANT PIPE.—In the line of large pipe there are numerous inquiries and many prospects but few orders. Small pipe is in good demand from jobbers who are stocking up.

Discounts are unchanged as follows:

	Black.	Galvanized.
¾ to 1½-in. Butt weld	79	69
2-in. Lap weld	76	66
2½ to 4-in. Lap weld	78	66
4½ to 12-in. Lap weld	77	67

At these discounts the net prices of pipe per ft. are as follows:

	Steel Pipe in Cts. per ft. f. o. b. Mill Black.	 Galv.
¾-inch	2.43	3.58
1 -inch	3.47	5.12
1¼-inch	4.74	7.00
1½-inch	5.69	8.35
2 -inch	8.65	12.20
2½-inch	12.70	19.80
3 -inch	16.60	25.60
4 -inch	23.70	36.70
5 -inch	33.40	48.00
6 -inch	43.20	62.00
7 -inch	54.00	78.00
8 -inch	65.00	93.00
9 -inch	78.00	112.00
10 -inch	92.00	132.00
11 -inch	104.00	149.00
12 -inch	114.00	162.00

TIN PLATE.—Business is much better, there having been an increase of about 50% in the operating capacity of the mills of the leading interest. The mills of the independent makers are working nearly full time.

Terne plates or tin plates used for roofing purposes are sold by the box of 112 sheets. Store prices in New York are without change at $8.50 per box for 20 × 28-in. I C plates with an 8-lb. coating; plates of the same size with a 15-lb. coating are $10.40; 20-lb. coating, $13 and 40-lb. coating, $16.50.

BARS AND MERCHANTS SHAPES.—The demand continues fair. Prices are steady and firm, the following being named from New York store:

	Cts. per lb.
1 to 1⅞-in. round and square	1.90
1½ to 4-in. × ⅜ to 1-in.	1.90
1½ to 4-in. × ¼ to 5/16	2.10
Rods—⅝ and 11/16 round & square	2.10
Angles:	
3-in. × ¼-in. and larger	2.10
3-in. × 3/16-in. and ⅛-in.	2.35
2½ to 2½-in. × ⅛-in.	2.35
2½ to 2¾-in. × 3/16-in. & thicker	2.10
1 to 1¼ × 3/16-in.	2.20
⅞ × ⅛-in.	2.40
¾ × ⅛-in.	2.50
⅝ × ⅛-in.	3.55
½ × 3/32-in.	4.35
Tees:	
1-in.	2.65
1¼-in.	2.45
1½ × 2½ × ¼-in.	2.15
1½ × 2½ × 3/16	2.35
3-in. and larger	2.15
Beams	2.10
Channels, 3-in. and larger	2.10
Bands—1½ to 6 × 3/16 to No. 8	2.35
Norway bars	3.60
Bessemer Machinery, Steel	1.90
Cast steel, base	7.00
Special cast steel, base	14.00 to 15.00

LAG SCREWS.—Quotations are without change. Cone point lag screws are sold at a discount of 75 and 10% from list. Net prices are as follows:

	Net price per 100 ¼-inch.	 ¾-inch.	 1-inch.
3½-inch	$1.17	$2.40	$5.00
4 -inch	1.25	2.55	5.25
4½-inch	1.33	2.70	5.50
5 -inch	1.40	2.85	5.80
6 -inch	1.58	3.20	6.40
7 -inch	1.73	3.50	7.00
8 -inch	1.82	3.85	7.60
9 -inch	2.05	4.10	8.20
10 -inch	2.25	4.45	8.75
11 -inch	2.40	4.70	8.30
12 -inch	2.60	5.00	9.90

CHAIN.—Lower prices have been named on machine-made chain, the cut amounting to 15 cts. per 100 lbs.

The following prices are named for cash lots of 500 lbs. to consumers. The quotations are per 100 lbs., f. o. b. Pittsburg.

Size in ins.	Proof.	BB.	BBB.
3/16	$8.10	$9.35	$9.85
¼	5.55	6.80	7.30
5/16	4.55	5.80	6.30
⅜	4.00	5.25	5.75
7/16	3.70	4.95	5.45
½ and 9/16	3.50	4.75	5.25
⅝	3.40	4.65	5.15
¾	3.30	4.55	5.05
⅞	3.20	4.45	4.95
1	3.10	4.35	4.85
1⅛ and 1¼	3.20	4.45	4.95

Prices of hand-made chains are unchanged.

Size in inches.	BBB crane chain.	BBB crane, dredge hoisting or steam shovel hoisting chain.	Special "Warwick" crane, hoisting steam shovel hoisting & dredge hoisting chain.	Special "Trident" crane, steam shovel hoisting & dredge hoisting chain.
⅝	$7.95	$8.20	$9.15	$9.15
¾	7.15	7.45	8.45	8.45
⅞	7.67	6.90	7.90	....
1	6.15	6.40	7.45	....
1⅛	5.75	5.95	6.90	....
1¼	5.65	5.90	6.85	....
1⅜ to 1⅞	5.55	5.75	6.80	....

COKE.—The demand shows some improvement and prices are slightly firmer. No large sales have been reported, but it is evident from the attitude of the coke operators that a number of contracts have been taken for later delivery. Several sales of furnace coke have been made at $1.55 and nothing below $1.45 is quoted. For deliveries during the remainder of the year $1.70 to $1.75 per ton is quoted. For 72-hr. foundry coke $2.25 to $2.50 per ton is quoted and one of the largest producers is not taking any orders below the outside figure.

The output in the Upper and Lower Connellsville region is about 280,000 tons weekly.

SPIRAL RIVETED PIPE.—Prices continue unchanged from the last report. The prices given below are f. o. b. factory, freight equalized, with New York City being figured at a discount of 50, 10 and 10% from list. They are for orders amounting to about $250. For large orders, of several carloads, prices are from 12½% to 20% cheaper.

Diameter in ins.	*Thickness of steel, Birmingham wire gage.	Net price per 100 ft. With bolted joints complete. Plain.	 Asphalted.	 Galvanized.
3	20	$21.80	$14.21	$20.70
4	18	19.76	21.48	30.74
5	18	23.40	23.70	37.14
6	16	33.05	35.76	49.73
7	16	37.58	40.76	56.82
8	16	43.17	46.80	65.00
9	16	50.06	54.10	74.22
10	14	66.42	71.08	96.15
11	14	71.20	76.57	102.24
12	14	83.75	89.15	118.32
13	14	89.67	96.55	127.98
14	14	99.14	105.51	138.85
15	14	108.05	114.89	151.92
16	14	117.53	124.82	166.58
18	12	167.43	175.95	226.44
20	12	183.79	193.30	248.39
22	12	200.48	210.64	269.21
24	12	219.92	231.07	293.99
26	10	280.26	292.41	370.78
28	10	301.32	314.89	395.37
30	10	324.81	399.15	430.64

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*Made in both lighter and heavier gages at corresponding differences in price.

NAILS.—Business shows a marked improvement in the line of wire nails and prices have advanced 5 cts. a keg.

Wire nails in Pittsburg are now sold at $1.80 base in carload lots to retailers with an advance of 10 cts. for less than carload lots. In New York wire nails are sold from store at $2.05 per keg. Cut nails are unchanged at $1.65 per keg in carload lots Pittsburg, and $2 per keg from store New York. All of these prices are per 100 lbs.

WIRE.—All kinds of wire goods are in better demand and prices have been advanced $1 per ton.

Revised quotations on plain wire are as follows: Carloads, annealed, $1.55; galvanized, $1.85. Less than carload lots are held at an advance of 10 cts. per 100 lbs. over these prices. Barbed wire in carload lots is $1.75 for the painted and $2.05 for the galvanized. An advance of 10 cts. per 100 lbs. is also charged for less than carload lots. Prices named are 100 lbs. at mill in the Pittsburg district.

SWEDISH STEEL.—Business is quiet. Prices are without change. Drill steel, either round, hexagon or octagon, is 6 cts. per lb. for all sizes ⅝ to 2 ins. For sizes 2⅛ to 3 ins. 7 cts. is quoted and 3⅛ to 4 ins. is 7½ cts.

Hollow drill rod is held at 12½ to 15 cts. for the imported.

Anvils of Swedish steel are held at 9 to 9½ cts. per lb. They weigh from 80 to 600 lbs.

SWITCH POINTS.—The following prices are named, f. o. b. mill for switch points in lots of ten or more pairs: For 60-lb. rail, 10-ft. points, $16.25; 15-ft. points, $17.50 for 70-lb. rail, 10-ft. points, $18; 15-ft. points, $25; for 80-lb. rail, 10-ft. points, $25.50; 15-ft. points, $27.75; for 90-lb. rail, 15-ft. points, $30.50; for 100-lb. rail, $33.50. All of the above are furnished with three rods, except the 10-ft. points for 60 or 70-lb. rail, which have only two.

BOLTS.—Prices are without change. The discount on common carriage bolts, to the retail trade and large consumers is 70 and 7½% from list, on bolts ⅜ × 6 ins., and smaller. The lowest price is 65 and 5% discount for larger and longer bolts. Net prices are as follows:

Length in inches.	Diameter in inches—Net price per 100. ⅜	 ½	 ¾
4	$0.74	$1.22	$2.86
5	0.83	1.36	3.15
6	0.92	1.52	3.50
7	1.22	1.65	3.75
8	1.34	1.80	4.25
9	1.45	1.95	4.50
10	1.55	2.20	4.75
12	1.75	2.40	5.25
14	1.90	2.70	5.90
15	2.05	2.85	6.25
18	2.40	3.25	7.20
20	2.60	3.50	7.75

FROGS.—For mill shipments, of ten or more, prices are as follows: Bolted frogs No. 7, for 60-lb. rail, $15; for 70-lb. rail, $16.50; for 80-lb. rail, $18; No. 8 frogs for 90-lb. rail, $21; for 100-lb. rail, $23. Plate frogs No. 7, riveted to ⅝-in. plate for 60-lb. rail, $18; for 70-lb. rail, $20; for 80-lb rail, $21.50. No. 8 frogs bolted to a ¾-in. plate for 90-lb. rail are $25.50; for 100-lb. rail, $27.50.

REINFORCING MATERIALS.

EXPANDED METAL.—Prices continue steady. The following prices are for small lots from the warehouse, either New York or Pittsburg. Material concessions, however, would be made for large orders:

Mesh, ins.	Gage (Stubs).	Section in sq. in. per ft. width.	Weight, in lbs., per sq. ft.	Size of Standard Sheets in ft.	Price per sq. ft f.o.b. New York.
½	18	.209	.74	8 × 3 or 6 ft.	5.5
¾	13	.225	.80	6 × 8 or 12 ft.	6.2
1½	13	.207	.70	4 × 8 or 12 ft.	5.5
2	12	.166	.56	5 × 8 or 12 ft.	4.8
3	16	.083	.28	6 × 8 or 12 ft.	2.4
3	10	.148	.50	5.25 × 8 or 12 ft.	2.6
3	10	.178	.60	6 × 8 or 12 ft.	2.8
3	10	.267	.90	4 × 8 or 12 ft.	3.8
3	10	.356	1.20	6 × 8 or 12 ft.	5.
3	6	.400	1.38	3.5 × 8 or 12 ft.	6.2
3	6	.600	2.07	4.66 × 8 or 12 ft.	8.3
4	16	.093	.42	4.5 × 8 or 9 ft.	2.8
6	4	.245	.84	5 × 8 or 12 ft.	3.7
6	4	.368	1.26	5 × 8 or 12 ft.	5.

TRIANGULAR MESH.—The demand continues good. Shipments are being made promptly.

The following quotations are for the lots of the size named f. o. b. mill Pittsburg district:

Style No.	Cross sec. area per ft. width.	Price per 100 sq. ft. Carload lots.	 Less than carloads and not less than 500 sq. ft.
4	.102	$1.03	$1.25
5	.077	.82	.99
6	.058	.65	.78
7	.041	.50	.61
23	.170	1.73	2.08
24	.142	1.48	1.80
25	.124	1.32	1.60
26	.110	1.20	1.45
27	.085	.98	1.19
28	.066	.81	.98
29	.049	.67	.81
31	.261	2.55	3.08
32	.225	2.20	2.67
33	.196	1.96	2.38
34	.146	1.51	1.82
35	.109	1.20	1.45
36	.075	.89	1.07
38	.380	3.62	4.38
39	.325	3.12	3.77
40	.283	2.74	3.30
41	.208	2.08	2.52
42	.151	1.58	1.92
43	.101	1.13	1.36

This material is made in regular widths of 18, 22, 26, 30, 34, 42, 46, 50, 54 and 58 ins. Standard lengths of rolls are 150, 300 and 600 ft. Cutting to special length is charged extra.

BARS, CONCRETE REINFORCING.—The demand for all kinds of bars shows an improvement. Bars for concrete reinforcing are in relatively better demand than those for manufacturing purposes. Prices are steady at 1.40 cts. base Pittsburg.

The following quotations are based on a price of 1.40 cts. Pittsburg:

	Cts. per lb. Plain.	 *Deformed.
¾-inch and larger	1.40 to 1.50	1.45 to 1.55
⅝-inch	1.45 to 1.55	1.50 to 1.60
½-inch	1.50 to 1.60	1.55 to 1.65
⅜-inch	1.65 to 1.75	1.70 to 1.80
¼-inch	1.90 to 2.00	1.95 to 2.05

Bar from stock Pittsburg are usually cut to the required length without extra charge. Prices per lb. are as follows:

	Cts. per lb. Plain.	 *Deformed.
¾-inch and larger	1.60 to 1.70	1.70 to 1.80
⅝-inch	1.65 to 1.75	1.75 to 1.85
½-inch	1.70 to 1.80	1.80 to 1.90
⅜-inch	1.85 to 1.95	1.95 to 2.05
¼-inch	2.10 to 2.20	2.20 to 2.30

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*The price of deformed bars varied according to the shape and some are held much higher than these prices.

EXPANDED LATH.—Prices are unchanged. The price for carload lots given below is f. o. b. mill Central Ohio:

Carload Lots. Price in cts. per sq. yd.

Gage.	Weight per sq. yd.	Black.	Painted.	Galvanized.
27	2¼ lbs.	11½	12¼	17½
26	2½ lbs.	12½	13¼	18½
25	2 lbs.	13½	14¼	19½
24	3.4 lbs.	14½	15¼	20½
Small Lots from New York Store. Prices in cents per sq. yd.				
27	13	13¾		19
26	14	14¾		20
25	15	15¾		21
24	16	16¾		22

This lath is packed 9 sheets to the bundle.

DIAMOND LATH FROM STORE.

Designation.	Gage.	Weight per sq. yd.	Price. Per sq. yd. Black, cts.
A	24	4 lbs.	20
A Special	24	4 lbs.	18
B	27	2.9 lbs.	16½
B Special	27	2.9 lbs.	15
B B	27	2.33 lbs.	14
Square Twist	24	4 lbs.	20
Diamond No. 24	..	3.75 lbs.	20
" No. 24 Special	..	3 lbs.	16½
" No. 26	..	2.66 lbs.	16½
" No. 26 Special	..	2.1 lbs.	14
Square Twist No. 27.	..	2.75 lbs.	14½

INTERLOCKING PLATES.—For interlocking steel plates, of 24 gage black steel f. o. b. mill Central Ohio, the following prices are named:

Length.	Per 100 sq. ft. Weight.	Price. Flat Sheets.
Under 4 ft.	100 lbs.	$11.00
4 to 6 ft.	160 lbs.	10.00
6 to 8 ft.	160 lbs.	9.50
8 to 10 ft.	160 lbs.	9.00
10 ft.	160 lbs.	8.50

Curved sheets are held at an advance of $1 per 100 sq. ft. over flat.

LUMBER.

The lumber markets are quiet all over the country. Stocks are not large either at the mills or in local yards, but the demand is so limited that even these small supplies are pressing on the market. Prices are quite uneven and often cuts of 50 cts. to $1 per thousand will be made for even small orders.

HEMLOCK.—The base price of Pennsylvania hemlock continues without change at $21. West Virginia can be obtained at $20.50. The following prices are ruling in New York:

Price Per Thousand f. o. b. cars New York.

Size.	Length 10 ft.	 12 ft.	 14 ft.	 16 ft.
2 × 4-in.	$23.00	$21.00	$21.00	$23
2 × 6-in. to 2 × 10-in.	21.00	21.00	21.00	18 to 2
3 × 4-in. to 12 × 12-in.	21.50	21.50	22.00	19 to 2
1 × 8-in.	....	18.00	18.00	18.00
1 × 10-in. and 1 × 12-in.	....	18.50	18.50	18.50

LONG LEAF YELLOW PINE.—Business is quiet. The demand for long sticks is limited and there is little new work in sight.

Prices are unchanged and for delivery from yard in New York and vicinity, for material classed as "Merchantable" under the 1905 rules of the Association prices are as follows:

Prices per Thousand Feet in Yard, New York.

	Length— 20 ft. base	21 to 25 ft.	26 to 30 ft.	31 to 35ft.
8 in. wide and under by 8 in. thick and under..	$31	$32	$33	$34
10 in. wide by 10 in. thick and under..	33	34	35	36
12 in. wide by 12 in. thick and under..	36	37	38	39
14 in. wide by 14 in. thick and under..	43	44	46	46
16 in. wide by 16 in. thick and under..	45	46	47	48

For pieces longer than 35 ft. and less than 40 ft. add from $4 to $8 to base price.

NORTH CAROLINA PINE.—Prices are without change as follows: For pieces 20 ft. long and less, in car lots, New York prices per thousand are as follows:

2 × 4-in.	$18	2 × 10-in.	$21
2 × 6-in.	18	2 × 12-in.	22
2 × 8-in.	18		

CROSS TIES.—The railroads have bought only in small lots and prices are lower. The stocks are small. Both the railroads and the mills in the South have allowed their supplies to dwindle and there is no accumulation anywhere. In some sizes there is almost a shortage.

The following prices, quoted f. o. b. New York by J. S. Baxter Co., 15 William St., New York City, are slightly lower than last month as follows:

	Cents each.
7 × 9-in. by 8 ft. 6-in.	75
6 × 9-in. by 8 ft.	nominal 72
6 × 8-in. by 8 ft.	67

Second-class, sound and square edge, are quoted as follows:

	Cents each.
7 × 9-in. by 8 ft. 6-in.	61
6 × 9-in. by 8 ft.	nominal 51
6 × 8-in. by 8 ft.	nominal 45

CLAY PRODUCTS.

HOLLOW WALL TILE.—The demand is small. Prices continue steady, and for hollow wall building tile, f. o. b. factory, Perth Amboy, N. J., are as follows:

Size.	Price per block. in cts.
4 × 12 × 12-in.	5.25
6 × 12 × 12-in.	6.6
8 × 12 × 12-in.	8.9
10 × 12 × 12-in.	10.5
12 × 12 × 12-in.	12.1

Fireproofing partition blocks are unchanged as follows:

Size.	Price per block, in cts.
2 × 12 × 12-in.	4.4
3 × 12 × 12-in.	4.4
4 × 12 × 12-in.	5.
6 × 12 × 12-in.	6.6
8 × 12 × 12-in.	8.8

These prices are for what would be considered small orders—approximately carload lots. For quantities which exceed $1,000 worth of material concessions will be made.

DUCT TELEPHONE.—Small lots are sold at 4½ to 5 cts. per duct ft., but considerable concessions are made for desirable orders.

FLUE LINING.—Prices continue without change. The discount from list f. o. b. mill, is 85%. Delivered in New York, in small lots, they can be had at 78%. Based on a discount of 85% at the mill, net prices are as follows:

	Weight in lbs.	Price per ft.
4½ × 8½-in.	14	$0.04½
4½ × 13 -in.	20	.068
4½ × 18 -in.	40	.15
6 × 12 -in.	22	.075
7 × 7 -in.	15	.053
8½ × 8½-in.	18	.068
8½ × 13 -in.	28	.098
8½ × 18 -in.	45	.135
12 × 16 -in.	45	.15
13 × 13 -in.	38	.128
13 × 18 -in.	57	.18
14 × 16 -in.	60	.165
16 × 16 -in.	65	.24
16 × 20 -in.	80	.30
18 × 20 -in.	75	.30

SEWER PIPE.—Business is quiet and prices are slightly easier. The discounts applying to the Eastern List are revised as follows: For all sizes up to and including 24-in., 88% discount from list; for 27 and 30-in., 79% discount; for 33 and 36-in., 74% discount.

At these discounts the net prices per ft. for carload lots, f. o. b. factory, are as follows

2-in.	$0.024
3-in.	.024
4-in.	.030
5-in.	.036
6-in.	.048
8-in.	.066
10-in.	.096
12-in.	.12
15-in.	.163
18-in.	.228
20-in.	.27
21-in.	.323
22-in.	.36
24-in.	.39
27-in.	.94
30-in.	1.15
33-in.	1.62
36-in.	1.82

ROOFING TILE.—Prices are steady, and continue without change. The best grade of promenade roofing tile in flat blocks for high-grade roofs is sold at $20 per M. for run of kiln, and $30 per M. for selected. A cheaper form of tile with a smooth surface can be had at $10 to $12, but it is not suitable for roof gardens. These prices are for 9 × 9-in. blocks, f. o. b. factory. It requires 258 blocks to lay 100 sq. ft. of roof surface and, in consequence the price per 100 sq. ft. of roof surface would be $4 to $5 for the smooth blocks; $7.82 for the run of kiln, and $10.73 for the selected.

Vitrified tile, unglazed, of the French or Spanish type, is sold at approximately $8.50 per 100 sq. ft. of roof surface, f. o. b. factory. Glass tiles are sold at 60 cts. each. It requires 183 of these for 100 sq. ft. of roofing.

MILL SUPPLIES.

SHAFTING.—The makers of automobiles are the best customers of the shafting manufacturers, although the implement makers have recently shown more interest in the market. The discounts are unchanged from last month, at 57% off list for carload lots. Small lots are obtainable at 52% off, and delivery is allowed in base territory.

The following net prices per foot are based on the 52% discount: ¾-in., 4 cts.; 1-in., 7 cts.; 1¼-in., 10.90 cts.; 1½-in., 14.20 cts.; 1¾-in., 19.10 cts.; 2-in., 25.50 cts.; 2¼-in., 32.50 cts.; 2½-in., 40 cts.; 2¾-in., 48.50 cts.; 3-in., 58 cts.; 3½-in., 85 cts.; 4-in., $1.08; 4½-in., $1.70; 5-in., $2.26; 5½-in., $2.90; 6-in., $3.70.

CHAIN BELTING.—Trade is satisfactory. Prices continue unchanged.

From 3 HP. to 10 HP. 30-in. centers complete, with two sprockets, $7 to $8 per HP; from 10 HP. to 25 HP., 36-in. centers complete, $5 to $6 per HP.; from 25 HP. to 100 HP., 60-in. center complete, $4 to $5 per HP.; from 100 HP. to 500 HP., 72-in. centers complete, $3 to $4 per HP.

PACKING.—Prices continue without change. The following quotations are for small lots in original packages.

Asbestos wick and rope, 13 cts.; sheet rubber, 11 to 13 cts.; pure gum rubber, 40 to 45 cts.; red sheet, 40 to 50 cts. Cotton packing can be had at 16 to 25 cts.; jute at 3¼ to 3½ cts., and Russian at 9 to 10 cts.

BELTING.—Some improvement is shown in the volume of business. Quotations are unchanged, the discount on rubber belting being 40% from list for the best grade; 40 and 10% for standard and 60 and 10% for competition. Leather belting is likewise without change at 55% discount for extra heavy; 60% heavy; 60 and 10% medium; 60 and 10 and 10% light; 70% shoulder, and 70 and 10% for standard.

The following net prices per ft. of leather belting are computed at the above discounts. The price of rubber belting is as stated unchanged from last month, the net prices may be found on page 15 of issue of Jan. 5.

LEATHER BELTING, PRICE PER FT.

Width, ins.	Extra heavy.	Heavy.	Light.
1	$0.11	$0.096	$0.078
1½	.162	.144	.177
2	.215	.172	.156
2½	.27	.24	.195
3	.325	.288	.235
3½	.38	.337	.275
4	.435	.385	.31
5	.54	.48	.39
6	.65	.58	.465
7	.76	.675	.55
8	.87	.78	.62
9	.97	.86	.70
10	1.08	.96	.78
11	1.20	1.06	.85
12	1.30	1.15	.94
14	1.52	1.35	1.09
16	1.73	1.53	1.28
18	1.95	1.73	1.40
20	2.16	1.92	1.56
22	2.37	2.10	1.72
24	2.60	2.30	1.87
26	2.82	2.50	2.05
30	3.25	2.90	2.33
36	3.92	3.45	2.82
48	5.00	4.60	3.75

LUBRICATING OILS.—Quotations continue without change, the following figures being named for 5-bbl. lots:

	Cts. per gal.
*Cylinder, dark	20 to 27
*Cylinder, steam. refined	14 to 22
Neutral Oils, filtered:	
Stainless white, 32 to 34 gravity.	28 to 29
Lemons, 33 to 34 gravity	17 to 19
Dark, 32 gravity	15 to 18
Crank Cast oil	15 to 17

*Prices are according to test.

HIGH-SPEED STEEL.—There is a very fair demand for all kinds of high-speed steel. Prices are without change at 50 to 75 cts. per lb.

COTTON WASTE.—Baled waste in New York is 10 to 11 cts. per lb.

FIRE HOSE.—Prices of hose are unchanged. The standard grade of underwriters' cotton rubber-lined hose, 2⅝-in. diameter, warranted, 350 lbs. pressure, is sold in 50-ft. lengths, complete with couplings, at 65 cts. per ft. Common hose, 2½-in. diameter, tested to 200 lbs. pressure, is 35 cts. per ft.

PAVING MATERIAL.

From all parts of the country reports come that paving work during 1911 will be more extensive than ever before. The improvement of highways is likewise being agitated in all parts of the country and the prospects are that more work of this character will be done this year than ever before.

ROAD OILS.—Prices continue unchanged, 30% asphaltum oil being quoted at 4 cts. per gal. Texico macadam asphalt, 90 to 95%, is 11 cts. per gal. f. o. b. New York or Philadelphia; A or X Tarvia in bbls. is 8½ to 9½ cts. per gal.; B grade in bbls. is 7 to 8 cts. per gal.

GRANITE BLOCK.—Prices are steady, Cape Ann blocks, delivered in New York City, are sold at $1.60 to $1.75 per sq. yd. Dressed block to lay with ¼-in. point is $2 to $2.10 per sq. yd.

ASPHALTUM.—Prices of asphaltum are steady and firm. Trinidad is quoted at $25 per net ton. California asphaltum is $26 to $30 per ton f. o. b. New York and $16 to $19 at point of shipment.

PAVING BLOCKS, WOOD.—Prices continue without change, as follows: For long leaf yellow pine blocks having not less than 20 lbs. oil per cu. ft., $1.85 is quoted for 3-in. block; $2.05 for 3½-in. block and $2.25 for 4-in. block. All these prices are per sq. yd., f. o. b. New York.

VITRIFIED BRICK.—Quotations are more or less nominal. Prices are unchanged at 55 to 70 cts. per sq. yd. at point of shipment.

OILS AND PAINTS.

PETROLEUM PRODUCTS.—While there is some over-production and a great deal of foreign competition, prices are steady and the demand is good.

The Standard Oil Co. quotes the prices of crude oil in bbls. at the wells as follows: Pennsylvania, Second Sand and Tiona, $1.30; Mercer black is 87 cts.; Corning, 77 cts.; New Castle, 84 cts.; Illinois, 60 cts.; Illinois heavy, below 30 gravity, 52 cts.; Kansas heavy, 30 cts.

In the New York market petroleum from tank wagon is unchanged at 6 cts. per gal.

Auto naphtha and stove gasoline is unchanged at 13¾ cts.

Fuel oil is 90 cts. to $1 per bbl.

LINSEED OIL.—Prices are firm but the demand is light. Flaxseed is being imported from South America and this, coupled with the agitation regarding Canadian reciprocity, has caused a drop in the price of seed.

Linseed oil, in 5-bbl. lots, is now quoted at the unchanged price of 90 to 91 cts. per gal.

SPIRITS TURPENTINE.—Prices have again advanced and now turpentine is nearly up to the price of linseed oil. The prevailing high prices are restricting consumption and putting a premium on adulteration. For 5-bbl. lots New York, N. Y., delivery, 86 to 86½ cts. is quoted.

PAINTS.—There is little activity due, in part, to the season and especially to the high price of oil. Prices of white lead in oil are unchanged. For lots of 500 lbs. or over, in 250 and 500-lb. kegs, 7½ cts. per lb. is quoted; in 25 and 50-lb. kegs, 7¾ cts. is quoted. Red lead and litharge in bbls. half bbls. and 100-lb. kegs, is 8 cts. per lb.

Graphite paint is moving slowly. The best grades of graphite paint in linseed oil can be purchased at $1.40 per gal.

Hydrox preservative paint is 75 cts. per gal. in bbl. lots, New York City.

Colors in oil are quoted at the following prices per lb.; Lamp black, 12 to 14 cts.; Chinese blue, 36 to 46 cts.; Prussian blue, 32 to 36 cts.; Van Dyke brown, 11 to 14 cts.; Chrome green, 12 to 16 cts.; Raw or Burn Sienna, 12 to 15 cts.; Raw or Burnt Umber, 11 to 14 cts.

CHEMICALS.

There have been no price changes during the month. The following quotations are named for delivery in New York City for lots of fair size:

	Cts. per lb.
Nitric acid, 30°	3.87½ to 4.25
Nitric acid, 40°	4.50 to 4.87½
Sulphuric, 60°	0.90 to 1.00
Sulphuric, 66°	1.00 to 1.25
Sal Ammoniac, lump	9.25 to 9.75
Sal Ammoniac, granulated	5.87½ to 6.00
Sal Ammoniac, gray	6.00 to 6.25
Sulphur, roll	1.85 to 2.15
Sulphur, flour	2.00 to 2.40
Sulphur, flowers	2.20 to 2.60
	Per gallon.
Alcohol, grain, U. S. proof	$2.54 to $2.57
Alcohol, denatured, 5-bbl. lots.	.41 to .42
Alcohol, denatured, ½-bbls.	.46 to .47
Alcohol, wood, 95 to 97	.52 to .57
Alcohol, wood, purified	.80 to ..

LINE CONSTRUCTION.

ALUMINUM WIRE.—The demand is limited and prices are without change at 31 cts. base.

POLES.—Cedar poles are quoted as follows by the R. D. Dowie Pole Co., 432 New York Block, Seattle, Wash. The price is f. o. b. loading point:

Length in ft.	Diameter at top. 8-in.	9-in.
30	$2.70	....
35	3.15	3.50
40	3.60	4.00
45	...	4.50
50	...	5.00
55	...	5.50
60	...	7.20
65	...	9.75
70	...	10.50
75	...	11.25
80	...	12.00

White cedar poles are quoted by the Backus-Judd Lumber & Cooperage Co., Minneapolis, Minn., f. o. b. Rex. Mich., freight rate to Chicago 12 cts., as follows:

Length in feet.	Price each — Diameter at top. 5-in.	6-in.	7-in.
25	$0.65	$1.10	$1.50
30	...	1.60	3.75
35	...	4.00	5.00
40	...	5.25	7.00
45	...	7.25	9.50
50	...	10.00	11.00

Chestnut poles, f. o. b. Mechanicsville, N. Y., are quoted by T. C. Luther of that place as follows:

Length in feet.	Price each — Diameter at top. 5-in.	6-in.	7-in.
25	$1.50	$2.00	$2.75
30	2.50	2.75	3.25
35	2.75	3.25	4.00
40	3.25	4.00	5.50
45	4.00	5.50	7.50
50	5.50	7.50	9.50

FIR CROSS ARMS.—Prices are unchanged as follows:

Length. Size, 3¼ × 4¼-in.	Price per arm in cts. Pacific Coast.	Chicago.	New York.
3 ft., 2-pin	8	13½	15½
4 ft., 2-pin	11	18½	21
5 ft., 4-pin	18	26½	28½
6 ft., 4 and 6-pin	2[illegible]½	31½	36
8 ft., 6 and 8-pin	28	43	48½
10 ft., 8, 10 and 12-pin	37	55½	67½

TELEGRAPH WIRE.—For lots of fair size, the wire measured in Birmingham wire gage, the prices in cts. per lb. are as follows: "Extra Best Best," Nos. 6 to 9, 4¾ cts.; Nos. 10 and 11, 4½ cts.; No. 12, 4⅝ cts.; No. 14, 5¼ cts. "Best Best," Nos. 6 to 9, 3¼ cts.; Nos. 10 and 11, 3⅜ cts.; No. 12, 3½ cts.; No. 14, 4 cts. Actual freight is allowed from Trenton, N. J., where it does not exceed 25 cts. per 100 lbs.

INSULATORS.—Prices are without change. Glass insulators in lots of more than 1,000 and less than 10,000 are sold at the following prices per 1,000: Double petticoat, 20 oz., $33; Western Union, $30.25; No. 2, cable, $53.90; No. 4 cable, $210; Muncle type, 7-in., $236.50; No. 3 triple petticoat, 4½-in., $90.75.

COPPER WIRE.—While all reports are to the effect that business in the wire line is very light, there seemed to be little doubt that the telephone companies have purchased more freely for more than a year. The aggregate tonnage consumed by the telephone and telegraph companies is large. Wire in the large sizes is in only limited demand.

A review of the copper market will be found under "Metals," in another part of this supplement.

METALS.

COPPER.—The January copper metal market failed to justify the optimistic predictions which came from important sources during the last month of 1910. Buying was conducted on a very small scale in the early days of January and though the leading sellers held firmly at 13 cts., delivered, for electrolytic, independent producers disposed of some metal at 12.75 cts., delivered, preceding the publication of the December report of the Copper Producers' Association. This proved to be a wise business stroke on the independents part, as the statistics made a decidedly unfavorable impression among the trade, and the demand diminished to almost nothing immediately following its publication.

The statement showed that the daily rate of production had not decreased during December, and that deliveries into domestic consumption fell off 17,207,974 lbs. Exports rose to a new high level for the year, at 88,104,675 lbs.

Competition for business forced the price of electrolytic copper down to 12.37½ cts. delivered 30 days. Around the low figures consumers became interested and between 40,000,000 and 50,000,000 lbs. of the metal are believed to be a reasonable estimate of the amount of business done during the third and fourth weeks of the month. The price of electrolytic advanced to 12.62½ cts. on this buying, which was done for both domestic and foreign delivery. The advance was not well established, however, before the United Metals Selling Co., which had up to that time held at 13 cts., announced a cut of ½ ct. to 12.50 cts., delivered. This had a disturbing effect on the market and consumers having fairly well supplied themselves, withdrew and awaited further developments. At the close of the month independent producers are freely offering February and March electrolytic copper at 12.25 cts. cash New York, and 12.37 cts. delivered. Lake is 12.62½ to 12.75 cts.

Copper exports since Jan. 1, aggregate 27,513 tons.

ROOFING COPPER.—With the approaching season of building activity, the price of copper sheets is inclined to be more firm. The prevailing quotation is 18 cts.

TIN.—The pig tin market has been active and excited throughout the month. Syndicate control has characterized every session of the foreign exchange, and has been a conspicuous influence at every point of important developments in the market. The available supply to domestic consumers has been minimized to the lowest possible point, notwithstanding liberal arrivals which will approximate 4,500 tons for January. This necessitated competitive bidding among local buyers to cover their needs and the full foreign equivalent has been paid by both large and small users of the metal.

Due to the activity of the tin plate mills domestic consumption has been good, and a fair demand for tin has prevailed. Late in the month sellers were offering spot, and nearby tin at 44.67½ cts. This price is 6.32 cts. above the December closing of 38.35 cts.

The Banca auction was held Jan. 26, and about 2,500 tons of tin was sold at an average price equal to 42.35 cts. c. i. f. New York. The Syndicate was a strong competitive bidder and succeeded in securing about two-thirds of the amount sold.

Lead.—The pig lead market has been quiet, with all interests quoting about the same asking price of 4.50 cts. in New York. The Government report issued early in January showed that the production for 1910 was 34,000 tons greater than in 1909, and the stock of lead in bond on Dec. 1, was 32,446 tons. This is an increase of 15,041 tons for the year in bonded stocks and the showing caused consumers to hesitate in buying ahead of immediate needs.

	Per lb.
Sheet Lead:	
Large lots	6.25 cts.
Small lots	6.75 cts.
Lead Pipe:	
Large lots	5.75 cts.
Small lots	6.40 cts.

SPELTER.—Following the December break in spelter prices, the market became very quiet, and fluctuations have been narrow, during the month, ranging between

5.45 cts. and 5.65 cts. in New York. Prime Western can now be had at 5.45 cts. in New York, and at 5.30 cts., St. Louis. Some producers claim there is no profit in working up domestic ores and selling the metal at the present level to consumers in this country, but that a profitable business can be done with foreign buyers by using Mexican ore and this is being carried on.

MISCELLANEOUS METALS.—Small lots of metal and metal products can be obtained from jobbers' stores, New York, at the following prices:

	Per lb.
Bismuth	$2.25
Brass tubes, iron pipe sizes:	
½-in.	.19
¾ to 3-in.	.18
3½-in.	.19
4-in.	.20
Brass, sheets	.14½
Brass, rods	.14½
Solder, ¼ and ½ guaranteed	.24
Zinc, sheets	.08½
Manganese bronze rods	.16
Manganese bronze in crucible form	.14
Monel metal, ingot	.16

OLD METALS.—Miscellaneous lots of scrap metal amounting to about a ton can be sold to dealers in New York at about the following prices:

	Cents.
Copper, heavy and crucible	10.75 to 11.00
Copper, heavy and wire	10.50 to 10.75
Copper, light and bottoms	9.75 to 10.00
Brass, heavy	7.25 to 7.50
Brass, light	5.75 to 6.00
Heavy machine composition	9.75 to 10.00
Clean brass turnings	7.25 to 7.50
Composition turnings	8.25 to 8.50
Lead, heavy	3.75
Lead, tea	3.50
Zinc, scrap	4.00

MISCELLANEOUS.

ROPE.—Prices continue without change, the demand being small.

Pure Manila is 8¾ to 9¼ cts. per lb.; second grade, 7¾ to 8¼ cts.; hardware grades, 7 to 7¾ cts. per lb. Pure Sisal is 6¾ cts. for the highest grades, and 6¼ cts. for less desirable grades. Jute rope in commercial sizes is 5¼ to 6¼ cts. per lb.

ROOFING SLATE.—Prices are lower. Business has been light for nearly a year, large stocks have accumulated and there has been almost no inquiry. The makers have put down prices with the double purpose of moving stocks and curtailing production.

Quotations are named per "square" or 100 sq. ft. of roof surface in carload lots of the sizes in most general use, f. o. b. quarry station:

	Per 100 sq. ft.
Vermont, sea green	$3.50 to $4.10
Pennsylvania, Bangor Ribbon	3.50 to 4.00
Maine, Brownsville No. 1	5.00 to 7.75
Maine, Brownsville No. 2	4.50 to 6.00
No. 1 Red	10.50 to 12.00
Unfading green	4.00 to 5.50
Genuine Bangor	4.00 to 6.50
Pen Argyle	4.00 to 5.50

OAKUM.—The price of oakum continues unchanged, the best grades selling at 6¼ cts. U. S. Navy is 5¾ cts., and plumbers' oakum is 2¼ cts.

WATERPROOFING.—The prices for carload lots f. o. b. cars New York, are as follows: Hydrex waterproofing felt, $1.25 per 100 sq. ft.; Hydrex compound "A," 26 cts. per gal.; Hydrex compound "B," 18 cts. per gal.

Texaco waterproofing cement is $30 per ton in car lots, f. o. b. cars New York or Philadelphia.

Asphaltum for waterproofing is sold at $25 to $27 per net ton.

Glidden's graphite acid proof coating is sold at $1.25 per gal. in bbl. and ½ bbls., and $1.40 per gal. in 5-gal. cans. These prices are f. o. b. Cleveland or for delivery from warehouse, New York, Chicago, St. Louis, Boston or Atlanta.

Portland cement waterproofing by the McCormick Process is sold by the makers, McCormick Portland Cement Co., at 7 cts. per lb., delivered at the nearest railroad station, subject to the following discounts: Less than ton lots, 2%; less than five tons, 5%; less than ten tons, 5 and 2%; less than 20 tons, 5 and 5%; less than 30 tons, 5 and 7½%.

ROOFING CEMENT.—Prices are unchanged at $25 per ton for Texaco.

EXPLOSIVES.—Dynamite of the kind usually used by contractors is approximately 11 to 13 cts. per lb., f. o. b. factory, in ton lots. Blasting powder, classified as "soda" grade, is sold at $1.20 to $1.40 per keg, of 25 lbs. in lots of 10,000 lbs. The following prices prevail on Trojan in carload lots, minimum 24,000 lbs., f. o. b. Pacific Coast points: No. 1, 13½ cts.; No. 2, 10½ cts.; No. 3, 10 cts. They have a disruptive force equivalent to 60%, 40% and 30% of nitroglycerine.

Exploders, per hundred, are sold at the following prices: 4 ft., $3.60; 6 ft., $4.10; 8 ft., $4.60; 10 ft., $5.10; 12 ft., $5.60; 16 ft., $6.60; 20 ft., $7.50; 24 ft., $9.40; 30 ft., $12; 36 ft., $14.60.

Caps in lots of 10,000 are $7 to $8 per thousand.

Blasting machines for 10 holes are $12; 25 holes, $20; 50 holes, $40; 100 holes, $60.

RUBBER.—Prices are even lower than last month. Up-River Para Coarse is now at 97 cts., and Up-River Para Fine is about 5 cts. a lb. cheaper than last month at $1.27. Caucho Ball, which has heretofore resisted the decline is also 5 cts. a lb. cheaper; this is now quoted at 95 cts.

PINE TAR.—Prices are without change at $7.50 for kiln and $7.25 for retort. These prices are for bbl. of 480 lbs.

ASBESTOS.—Asbestos building felt and sheathing in less than ton lots is 3½ cts. per lb. for the light, weighing from 6 to 30 lbs. per 100 sq ft.; 4 cts. per lb. is charged for the heavy weighing from 45 to 56 lbs. per 100 sq. ft.

Millboard is made in standard sheets, 40 × 40 ins., and 41 × 4 ins. It varies in thickness from 1-32 to ½-in. and in weight from 2 to 27 lbs. per sheet. The net price in 100 lb. lots is 5 cts. per lb.

Transite, asbestos wood, used for fireproofing, ventilators and smoke jacks, comes in standard sheets, 36 × 48 ins., 42 × 48 ins., and 42 × 96 ins. The prices, f. o. b. factory, Nassau, N. H., are as follows:

Thickness.	Weight.	Price.
⅛-inch	1 lb.	$0.08
3/16-inch	1½ lbs.	.12
¼-inch	2 lbs.	.16
5/16-inch	2½ lbs.	.20
⅜-inch	3 lbs.	.28
7/16-inch	3½ lbs.	.28
½-inch	4 lbs.	.32
9/16-inch	4½ lbs.	.36
⅝-inch	5 lbs.	.40
¾-inch	6 lbs.	.44
⅞-inch	7 lbs.	.48
1 inch	8 lbs.	.52
1¼ inches	10 lbs.	.56
1½ inches	12 lbs.	.64
1¾ inches	16 lbs.	.72
2 inches	16 lbs.	.80

PAPER.—Prices are without change from last month, as follows:

Tarred Paper:	Per roll of 108 sq. ft.
Standard, 2-ply, 40 lbs	$0.45
Extra heavy, 2-ply, 45 lbs	.55
Standard, 3-ply, 60 lbs	.65
Extra heavy, 3-ply, 70 lbs	.75

Rosin Sized Sheathing:	Per roll of 500 sq. ft.
Light, 35 lbs.	$0.38
Medium, 30 lbs.	.45
Heavy, 40 lbs.	.60

LIGHTERAGE LIMITS.—The free delivery or "Lighterage Limits" in New York City are as follows: in Manhattan, from a point opposite the Fort Lee ferry, south along the Hudson River around the Battery and north along the East and Harlem Rivers to the Jerome Ave. Bridge at 155th St. In New Jersey, south from Fort Lee ferry to Bayonne City, points on the north and east shore at Staten Island, between Bridge Creek (Arlington) and Clifton, both in[illegible]ve, and including Elm Park, Eristina [illegible] Shooters Island. In Brooklyn, from 6[illegible] Bay Ridge, north to Port Cove, A[illegible] Long Island City.

GLASS.

WINDOW GLASS.—In spite [illegible] the low prices, there is very little activ[illegible] and jobbers have large stocks. Discou[illegible] are unchanged at 90 and 15% from jobb[illegible] list for all sizes of single and double st[illegible]. The net prices per box of 50 s[illegible] at the discount named, are as follows:

American Window Gl[illegible]

Size of Glass, Ins.	Single T[illegible]ness. Price per b[illegible] 50 sq. ft. A.	B.
6 × 8 to 10 × 15	$2.27	$2.16
11 × 14 12 × 13 to 14 × 20	2.37	2.27
10 × 26 to 16 × 24	2.55	2.40
18 × 22 20 × 20 to 20 × 30	2.70	2.50
15 × 36 to 24 × 30	2.80	2.55
26 × 28 to 24 × 36	2.95	2.65
26 × 34 28 × 32 30 × 30 to 30 × 40	3.27	2.85
32 × 38 34 × 36 to 30 × 50	3.80	3.25
30 × 52 to 30 × 54	4.05	3.55

SKYLIGHT GLASS.—Trade is [illegible] and there is little new work in prosp[illegible] Prices continue without change from the [illegible] report, as follows:

Thickness, ins.	Price per sq. ft.
1/8	7 [illegible]
3/16	10 [illegible]
1/4	15 [illegible]

Wired skylight glass, ¼-in. thick, [illegible] 25 cts. per sq. ft.

VAULT LIGHTS.—Prices continue without change. Contractors furnishing their own molds can obtain glass at from 4 to 5 cts per lb. Bull's eyes, 3-in. in diameter, are [illegible] cts. each, and square lights, 3½ × 3½, are 5 to 6 cts. each.

PLATE GLASS.—The price is unchanged from last month at 89% discount from list.

In the accompanying table the net price of polished plate glass is figured at this discount. These prices apply to the glass only, an extra charge being made for boxing or cutting to special sizes.

NET PRICES OF POLISHED PLATE GLASS IN DOLLARS.

Length, feet.	Width, Feet													
	1	1.5	2	2.5	3	3.5	4	4.5	5	6	7	8	9	10
1	$0.24	$0.38	$0.50	$0.66	$0.86	$1.04	$1.18	$1.38	$1.52	$2.40	$2.86	$3.25	$3.75	$4.17
1.5	....	.59	.86	1.10	1.42	2.10	2.40	2.76	3.08	3.75	4.38	5.00	5.70	6.90
2	....	....	1.18	1.59	2.40	2.86	3.25	3.75	4.17	5.00	5.90	6.85	7.85	8.90
2.5	....	....	....	2.55	3.08	3.68	4.20	4.70	5.30	6.40	7.60	8.90	10.10	11.10
3	....	....	....	....	3.75	4.40	5.00	5.75	6.90	7.90	9.40	10.70	12.25	12.60
3.5	....	....	....	....	....	5.20	5.90	6.75	7.60	9.40	11.10	12.70	14.40	15.90
4	....	....	....	....	....	....	6.86	7.90	8.90	10.70	12.70	14.50	16.40	18.20
4.5	....	....	....	....	....	....	....	9.10	10.10	12.25	14.40	16.40	18.40	20.50
5	....	....	....	....	....	....	....	....	11.10	13.60	15.90	18.20	20.50	27.00
6	....	....	....	....	....	....	....	....	....	18.20	19.00	21.80	25.00	27.80
7	....	....	....	....	....	....	....	....	....	....	22.20	26.00	29.40	32.50
8	....	....	....	....	....	....	....	....	....	....	....	29.70	33.50	37.30
9	....	....	....	....	....	....	....	....	....	....	....	....	38.00	42.00
10	....	....	....	....	....	....	....	....	....	....	....	....	....	47.50
11	4.60	7.20	9.80	12.50	15.00	17.50	20.00	22.60	26.00	30.60	36.20	41.20	47.20	65.00
12	5.00	7.90	10.70	13.60	16.40	19.00	21.80	25.00	28.00	33.50	39.30	44.80	63.50	70.80
13	5.50	8.70	11.80	14.80	17.75	20.80	24.10	27.20	30.10	36.40	43.50	61.50	69.00	112.50
14	5.90	9.40	12.70	15.90	19.00	22.25	26.00	29.20	32.50	39.40	46.70	66.00	109.00	146.30
15	....	....	....	....	....	24.40	28.00	31.30	34.80	42.00	61.80	70.80	141.00	163.70
16	....	....	....	....	....	33.00	37.80	42.50	47.20	55.50	66.00	109.00	157.00	202.00
17	....	....	....	....	....	35.00	40.00	45.30	50.00	60.00	70.30	143.00	192.00	294.00
18	....	....	....	....	....	38.00	42.50	47.80	53.20	63.50	109.00	157.00	280.00	311.00

INDUSTRIAL NOTES.

MR. H. H. BARBOUR has been appointed District Sales Agent of the Metropolitan District by the Lackawanna Steel Co.

MR. W. B. KILPATRICK, formerly of the National Paint Works, has been placed in charge of a newly opened office of the Detroit Graphite Co., Detroit, Mich. This branch office is located at 405 Colorado Bldg., Washington, D. C.

MR. A. C. JOHNSTON, Chief Engineer of the J. M. Dodge Co., of Vicetown, Philadelphia, has been made Vice-President of the company, owing to the resignation, on Dec. 31, of Mr. George E. Titcomb, who formerly held this position.

THE EUREKA MACHINE CO., Lansing, Mich., reports that it is now making its concrete mixer in a larger size for heavy concrete work. The machine has a capacity of 20 to 25 cu. yds. per hour, and is operated by a 6-HP. gasoline engine, the total weight of the outfit being 4,700 lbs. Crucible steel is used for parts subjected to strain. The machine has the same features of proportioning and mixing as are used in the other Eureka concrete mixers.

BATES & ROGERS CONSTRUCTION CO., Civil Engineers and Contractors, have moved their offices to Old Colony Bldg., 84 Van Buren St., Chicago. The Western office is unchanged at 213 Lindelle Block, Spokane, Wash. This company is prepared to take contracts for all classes of construction, including stone masonry, reinforced and massive concrete work, dams, retaining walls, bridges, arches, irrigation, hydro-electric power developments, massive building work and all classes of railroad construction.

THE RAILWAYS OF CANADA increased their net earnings in 1910 by 32.3%. The increase in mileage last year was 627 miles of main line, 79 miles of second track and 393 miles of yard track and sidings. The Western Provinces were responsible for 519 miles of the increase in main lines. The Grand Trunk Pacific, although it has 1,500 miles of line in actual operation, is not included in the new mileage, since, officially, it is considered still under construction. Gross earnings in 1910 aggregated $173,000,000, a gain of $28,899,000 over 1909. Operating expenses amounted to $120,000,000, or $15,000,000 more than the preceding year.

THE WESTINGHOUSE ELECTRIC & MANUFACTURING CO., Pittsburg, Pa., has recently closed a contract with the Universal Portland Cement Co., for motors to operate their No. 6 Plant at Buffington, Ind. The motors will be of the "MS" mill type, having characteristics specially suited for cement mill work and they will operate on a 3-phase, 25-cycle, 440-volt circuit. The sizes range from 5 to 300 HP., and the aggregate capacity is 11,500 HP. This plant will be the largest in the United States, having a daily capacity of approximately 12,000 bbls., and will be electrically operated throughout the various drives, being of the latest development for cement mill work.

A SMALL EXHAUST-STEAM TURBINE has been built by the Kerr Turbine Co., of Wellsville, N. Y., for the Wanaque River Paper Co., of New Jersey. This type develops 200 HP. at 1,500 r. p. m. when taking steam at 3 lbs., gage and exhausting into a 26-in. vacuum. In this plant the steam comes from a 20 × 42-in. Corliss engine delivering 375 HP. by belt, to a line shaft. The engine, when operated condensing, developed 415 HP. and the present outfit develops a total of 575 HP., using the same amount of steam. This company has designed such small exhaust turbines for use as mixed-flow types, taking live steam during times of deficient exhaust supply. Others are designed for use with thermal storage tank in the exhaust between engine and turbine to wipe out heavy fluctuations in the exhaust supply.

A METHOD FOR INCREASING INDUCTANCE of submarine telephone and telegraph cables to overcome the distributed excessive capacity, has recently been patented by Prof. J. H. Cuntz, of Stevens Institute of Technology, Hoboken, N. J. It will be remembered that Prof. M. I. Pupin, of Columbia University, New York City, several years ago patented the idea of inserting inductance coils at different points in the cables to secure the same benefit. Prof. Cuntz's method secures a perfectly distributed inductance by the use of an iron core, preferably of stranded and helically wound wire. The conductors are insulated from each other and from the core and are wound helically also, but in a way so that their strands cross the core strands at right angles. It is claimed that by variation of the core, conductors and insulation the ratio of inductance to capacity can be controlled and with this the attenuation of speech transmitted.

AN IMPORTANT PATENT DECISION on concrete block-making machines was recently handed down by the United States Court of Appeals for the Seventh Circuit in the case of McDowell vs. the Ideal Concrete Machinery Co. The suit concerned the validity of a reissued patent, No. 12,598, dated Dec 18, 1906, to Borst and Grosscup, assigned by the patentees to the Ideal Co.

According to the court decision, the patent was originally obtained for an invention intended to make easy the casting of hollow concrete blocks with their face downward against an easily removable face plate. This patent was No. 735,938, dated Aug. 11, 1903. After the patent had been issued 19½ months the patentees became aware that other machines for making concrete blocks were on the market so constructed that they avoided infringement of this patent. The patentees therefore, on March 29, 1905, applied to have the patent reissued, alleging that the patent as originally drawn did not protect, through inadvertence of their attorneys, the invention which was shown and described. The application was granted and the patent was reissued with the same specifications and drawings and 11 new claims. These claims were so drawn as to include the other competing machines, which had meantime come on the market. Suit was brought under this reissued patent against these machines for infringement, and the lower court held the reissued patent to be valid.

The Court of Appeals, however, finds that these additional claims do not correspond at all to the original invention shown in the patentees' drawings and specifications. The Court therefore holds that these claims are not for the invention shown in the original patent, and the suit for their infringement therefore fails.

THE IMPORTANT ANNOUNCEMENT, made Jan. 31, regarding the building of double-track by the Union Pacific and Southern Pacific is not only the largest piece of construction work authorized in five years, but may pave the way for other ambitious developments.

The Executive Committees of the Union Pacific and Southern Pacific to-day voted to complete the double-tracking of the line from the Missouri River to San Francisco, and to double-track the Oregon Short Line from the junction with the Union Pacific main line at Granger, Wyo., to Huntington, Ore., and the line along the Columbia River in Oregon to Portland, being a total of 1,673 miles. The cost of this work will aggregate upwards of $75,000,000, and it is to be distributed over a period of five years.

The distance from Omaha to San Francisco is 1,780 miles. That portion of the Oregon Short Line to be double-tracked between Granger, Wyo., and Huntington, Ore., is 541 miles and the Columbia River line, from Portland to Umatilla, is 187 miles long. While this foots up to 2,508 miles, the Union Pacific had, on June 30, 1909, 475 miles of second track and, according to the announcement of Judge Lovett, by June 30, this year, 630 miles of the 1,000 miles between Omaha and Ogden, will be double-tracked.

The Union Pacific, with the Oregon Short Line and the Oregon R. R. & Navigation Co., have 6,230 miles of first track. They only have 475 miles of second track. The Southern Pacific, owner of the Central Pacific, the line from Ogden to San Francisco, has 229 miles of second track out of a main line of 9,976 miles.

The official statement concluded as follows:

"Plans for the construction of a number of extensions and new lines tributary to the Union Pacific and Southern Pacific in the West and Northwest, which for some time have been under consideration, were also approved, the expenditures therefor to extend over a period of six years.

"The policy we are pursuing is designed in the light of our own situation and needs, our lines being located, as they are, in comparatively new and rapidly developing sections of the country, and such policy may be unsuited to the needs and requirements of other systems and older sections."

TRADE PUBLICATIONS.

TELEPHONE SWITCHBOARDS.—Western Electric Co., New York. Paper; 8 × 11 ins.; illustrated.

This bulletin rather briefly sets forth some of the general equipment of central-battery telephone switchboards. The special features are pictured.

INSULATORS.—The Ohio Brass Co., Mansfield, Ohio. Catalog No. 10. Stiff paper; 9 × 6 ins.; illustrated.

The line of high-tension insulators made by this company is described in this catalog. Several types of construction on which these insulators have been used are pictured, and there is some introductory matter on the testing and rating of insulators. Insulator fittings, such as pins, brackets, irons, etc., are also included.

RAILROAD SIGNALS.—**The Railroad Supply Co., Chicago, Ill. Catalog No. 7, Section No. 6. Paper; 6 × 9 ins.; illustrated.**

The line of relays, indicators, switch locks and circuit controllers built by this company are pictured and described in this catalog. Circuits are shown in diagram.

THE PENNSYLVANIA TERMINAL IN NEW YORK.—Westinghouse-Church-Kerr & Co., New York. Stiff paper; 6 × 9 ins.; illustrated.

In an attractive pamphlet, the work performed by these prominent contractors for the Pennsylvania Tunnel & Terminal Co. and the Long Island R. R. Co. is described and pictured.

CONCRETE REINFORCEMENT.—American Steel & Wire Co., Chicago, Ill. Stiff paper; 6 × 9 ins.; pp. 106; illustrated.

This is an illustrated account of a number of tests made on triangle mesh concrete reinforcement in the City of New York. The tests were mostly fire tests in a small fire-testing house at Columbia University.

SWITCHBOARDS.—Crouse-Hinds Co., Syracuse, N. Y. Paper; 9 × 12 ins.; illustrated.

This catalog is devoted to that type of electric lighting switchboards known as service panels and cabinets. The various dimensions and capacities are shown and the boards are illustrated in color.

IRRIGATION PUMPS.—The American Well Works, Aurora, Ill. Paper; 7¾ × 10½ ins.; pp. 32; illustrated.

This bulletin is devoted to irrigation by pumping from sunken wells over a farm country. There are any number of photographic reproductions showing the admirable results which have been achieved in Kansas, particularly with such work.

REINFORCED-CONCRETE CONSTRUCTION.—Aberthaw Construction Co., Boston, Mass. Paper; 6 × 9 ins.; pp. 14; illustrated.

This pamphlet describes a very large reinforced-concrete mill building (100 × 256 ft. in plan and 12 stories high), which was built by the Aberthaw Construction Co. Progress photographs and a short description of the building are given.

FLOOR CONSTRUCTION. — National Mixer Co., Rochester, N. Y. Paper; 6×9 ins.; pp. 12; illustrated.

The Keystone floor construction is composed of separately molded concrete beams of such shape that they can carry concrete slabs between them. The whole system is supposed to be molded in pieces on the ground and set up in the building after it has hardened.

ELECTRIC LIGHTING OUTLETS. — Steel City Electric Co., Pittsburg, Pa. Paper; 6 × 9 ins.; illustrated.

This company poses as specialists in the manufacture of floor outlets for electric circuits, and in this pamphlet they have shown the advantages of their designs for outlet. This type has a wide range of top adjustment to compensate for displacement of base during building construction.

INSULATORS.—The Locke Insulator Mfg. Co., Victor, N. Y. Paper; 6 × 9 ins.; illustrated.

This catalog opens with a discussion of insulating materials and insulator specifications, followed by a description of insulator tests and requirements. The many insulators and supports designed by this company for various services are shown, with full data.

ELECTRIC-RAILWAY SUPPLIES. — The Ohio Brass Co., Mansfield, Ohio. Catalogs Nos. 8 and 20. Stiff paper; 6 × 9 ins.; illustrated.

The line of brackets, pins, hangers, clamps, insulators, frogs, deflectors, turnbuckles, etc., making up the overhead catenary construction for electric railways is described and pictured in Catalog 20. Catalog 8 shows a wider variety of material, making up the company's product intended for general use on electric-railway and mine-hauling systems.

ELECTRIC GENERATORS.—General Electric Co., Schenectady, N. Y. Bulletins 4776, 4685 and 4804. Paper; 8 × 10½ ins.; illustrated.

The first bulletin takes up direct-current generators from 25 to 250 KW. capacity for direct connection to high-speed engines.

Bulletin 4685, entitled "Belt Driven Alternators" is a revised form of an older bulletin on the same subject. The alternators described are of the revolving-field type, ranging in capacity from 30 to 550 KW.

Bulletin 4804 is also a revision of an older pamphlet on direct-connected generating sets. These sets were originally designed for marine work, but they have been used extensively for lighting and power in isolated plants. Details of the engine and mechanical features of the unit are shown.

LIST OF CONTRACTS PENDING.

Plans and Specifications on File.

The following plans (P.) and Specifications (S.) are on file for reference only unless otherwise noted at the office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close.		Noted in issue of
2- 4	**Roof and runway, Norfolk, Va. (S)**	**1-12**
2- 4	**Travelling crane, Norfolk, Va. (S)**	**1-12**
2-11	**Oil tanks, Portsmouth, N. H. (S)**	**1-12**
2-24*	**Earthwork, Belle Fourche, S. Dak. (S)**	**12-29**

Light, Heat and Power Plants.

Bids close.		Noted in issue of
2- 3	**Electric wiring, Salt Lake City, Utah**	**1-12**
2- 6	**Hydroelectric installation, Tacoma, Wash.**	**1-19**
2- 7	**Electric wiring, Roswell, N. Mex.**	**1-19**
2- 7	**Electric wiring, Watertown, Wis.**	**1-19**
2- 7	Lighting plant, Carlinville, Ill.	2- 2
2- 8	**Electric wiring, Melledgeville, Ga.**	**1-19**
2-11	Elec. service connections, Fort Sam Houston, Tex.	2- 2
2-14	Elect. equip, Atlanta, Ga.	1-26
2-15	Elect. equip, Haverhill, Mass.	1-26
2-16	Light and power, Leavenworth, Kan.	1-26
2-23	Fixtures, Washington, D. C.	2- 2
3- 1	Gas plant, Monterey, Mex.	1-26
3- 8	Fixtures, Cleveland, Ohio	2- 2

Bridges.

Bids close.		Noted in issue of
2- 5	Bridge, Iuka, Miss.	2- 2
2- 6	Bridge, Columbus, Ind.	2- 2
2- 6	Bridge, Vicksburg, Miss.	2- 2
2- 6	Bridges, Chanute, Kan.	2- 2
2- 6	Bridge work, St. Cloud, Minn.	2- 2
2- 6	Bridge, Laporte, Ind.	2- 2
2- 6	Bridge repairs, Williamsport, O.	1-26
2- 6	**Steel bridge, Ocilla, Ga**	**1-12**
2- 6	**Substructure, Zanesville, Ohio**	**1-19**
2- 6	**Bridge, Meridian, Miss.**	**1-26**
2- 6	**Bridge repair, Minneapolis, Minn.**	**1-26**
2- 7	**Bridge, Houma, La.**	**1-26**
2- 7	**Bridge, Elkhart, Ind.**	**1-26**
2- 7	Bridge, Vancouver, Wash.	2- 2
2- 7	Culvert, Augusta, Ga.	2- 2
2- 7	Repairing bridges, Martinsville, Ind.	2- 2
2- 8	Bridge, Indianapolis, Ind.	1-26
2- 8*	**Bridge, Salem, N. J.**	**1-19**
2- 9	Bridge, Monterey, Va.	2- 2
2- 9	Bridge, Spokane, Wash.	2- 2
2-13	Superstructures, Washington, C. H., Ohio	2- 2
2-15	Bridge, Lawrenceville, Va.	2- 2
2-16	Bridge, Conway, S. C.	2- 2
2-23	Bridge work, Columbus, Ohio	2- 2
2-27	**Bridge, Yankton, S. Dak.**	**1-19**
2-28	Bridge, Springfield, Ohio	1-26
3- 2*	Bridge, Kingston, N. Y.	2- 2
3- 6	Arches, etc., Los Angeles, Cal.	2- 2

Buildings.

Bids close.		Noted in issue of
2- 3*	**Post-office, etc., Salt Lake City, Utah**	**1- 5**
2- 3	**Erection of building, Hillsdale, Mich**	**1-12**
2- 3	School, Pittsburg, Pa.	2- 2
2- 3	School, Washington, D. C.	2- 2
2- 4	Erecting bldg., Tallahassee, Fla.	2- 2
2- 4	Bldgs., Fort Winfield Scott, Cal.	2- 2
2- 6	**Post-office, Mt. Clemens, Mich.**	**1- 5**
2- 6	Bldgs., Jacksonville, Fla.	2- 2
2- 7	**Post-Office, etc., Watertown, Wis.**	**1-12**
2- 7	**Courthouse, Griffin, Ga.**	**1-19**
2- 7	Erect. of bldgs., Blauvelt, N. Y.	2- 2
2- 7	School, Randalls Island, N. Y.	2- 2
2- 8	County jail, Sioux Falls, S. Dak.	2- 2
2- 8*	**Building, Milledgeville, Ga**	**1-12**
2- 9	**Post office, Wabash, Ind.**	**1-26**
2- 9	Concrete school, Maple Rapids, Mich.	2- 2
2-10	Bldg., Crookston, Minn.	2- 2
2-10	School, Ainsworth, Neb.	2- 2
2-10	School, Livingston, Wis.	2- 2
2-11	Bldg., Indianapolis, Ind.	2- 2
2-11	School, North Grove, Ind.	2- 2
2-11	Bldg., Galveston, Tex.	2- 2
2-14	School, Ashtabula, Ohio	2- 2
2-14	School, Lakewood, Ohio	2- 2
2-14	**Post office, etc., Barre, Vt.**	**1-19**
2-15	**Post office, etc., Brazil, Ind.**	**1-19**
2-15	Bldg., Belleplaine, Minn.	2- 2
2-15	High school, Aurora, Ill.	2- 2
2-15	Edifice, Wagner, S. Dak.	2- 2
2-15	Jail, Rushville, Neb.	2- 2
2-16	Court-house, Onida, S. Dak.	2- 2
2-18	Storehouse, Ft. H. G. Wright, N. Y.	2- 2
2-18*	**Post office, North Yakima, Wash.**	**1-19**
2-20	**Post office, etc., Big Stone Gap, Va.**	**1-19**
2-20	Bldg., Grand Forks, N. Dak.	2- 2
2-21	School, Freeport, Ill.	2- 2
2-23	School, Emery, S. Dak.	2- 2
2-23	**Erection of bldg, etc., Murphysboro, Ill.**	**1-19**
2-26	**School, Carcross, Yukon**	**1- 5**
3- 1	School, Glidden, Wis.	2- 2
3- 8	Post-office, Brookhaven, Mass.	2- 2
4-15	Plans, Havana, Cuba	10-20

Water-Works.

Bids close.		Noted in issue of
2- 3	**Water-works, Wooster, Ohio.**	**1-26**
2- 3	Water mains, Seattle, Wash.	2- 2
2- 3	Pipe, Brandon, Man.	2- 2
2- 3	Water-works supplies, Winnipeg, Man.	2- 2
2- 4	**Water mains, Troy, Ohio**	**1-26**
2- 4	**Water-works, Kingston, Ill.**	**1-26**
2- 6	**Water-works, Rippey, Iowa**	**1- 5**
2- 6*	**Pumping plants, Winnipeg, Man.**	**1-12**
2- 6	**Pumping station, Hanover, Kan.**	**1-26**
2- 6	Water-works improvements, Huron, S. Dak.	2- 2
2- 6	Water-works extension, Monrovia, Cal.	2- 2
2- 6	**Reservoir, etc., Tacoma, Wash.**	**2- 2**
2- 6	**Water systems, Kirkwood, Ga**	**2- 2**
2- 6	Well, Madison Lake, Minn.	2- 2
2- 7	Water-line, Bayonne, N. J.	2- 2
2- 7	Water system extension, Turlock, Cal.	2- 2
2- 9*	**Meters, Kansas City, Mo.**	**1-26**
2-10	Meters, etc., New York	2- 2
2-10	Cast-iron pipe, etc., Minneapolis, Minn.	2- 2
2-11*	Pumps and motors, Chicago, Ill.	2- 2
2-13	Laying pipe, Pembroke, Ont.	2- 2
2-13*	**Well, South River, N. J.**	**1-19**
2-14	**Water system, Townsend, Mont.**	**1-26**
2-14	**Water purification works, Toledo, Ohio**	**1-19**
2-14	Water-works supplies, Ottawa, Ont.	2- 2
2-14	Reservoir, Webb City, Mo.	1-26
2-15	Pumps, etc., Roosevelt, Ariz.	1-26
2-15	Water-works, Gainesville, Ga.	2- 2
2-16	Water-works, Dalton, Ga.	2- 2
2-16*	Enlarging reservoir, etc., Bozeman, Mont	1-26
2-17	Pumping station, North Bend, Neb.	1-26
2-20	Water system, Madera, Cal.	2- 2
2-21	Pumping engine, Coshocton, O.	2- 2
2-21	Wood pipe, etc., Colville, Wash.	2- 2
2-24*	Earthwork, Belle Fourche, S. Dak.	12-29
2-28*	Reservoir, etc., Ft. Terry, N. Y.	2- 2
3- 1	Completing dam, etc., Green River, Utah	2- 2
3- 1	**Water-works, Atlantic, Iowa**	**1- 5**
3- 6	Main, Sheridan, Wyo.	2- 2
4- 1	Water-works, West Telford, Pa.	2- 2

Sewers.

Bids close.		Noted in issue of
2- 2	Sewer, Cincinanti, Ohio	2- 2
2- 2	Sewer, Philadelphia, Pa.	2- 2
2- 3	Sewer, St. Louis, Mo.	1-26
2- 6	**Sewers, Atlanta, Ga.**	**1-19**
2- 6	Sewers, St. Paul, Minn.	2- 2
2- 6	Sewers, Cincinnati, Ohio	2- 2
2- 6	Sewer, San Francisco, Cal.	2- 2
2- 6	Sewer, Portland, Ore.	2- 2
2- 6	Sewer, Toppenish, Wash.	2- 2
2- 6	Sewers, Muskogee, Okla.	2- 2
2- 6	Sewers, Fresno, Cal.	2- 2
2- 6	Sewers, Lawrence, Kan.	2- 2
2- 6	Sewers, Muskogee, Okla.	2- 2
2- 7	Culverts, Dickinson, N. Dak.	2- 2
2- 7	Sewers, Turlock, Cal.	2- 2
2- 7*	**Sewers, Toronto, Ont**	**1-12**
2- 7*	Sewers, Summit, N. J.	1-26
2- 8	Sewers, Garner, Iowa	1-26
2- 9	Sewers, Cleveland, Ohio	2- 2
2- 9	Sewers, Yorkville, N. Y.	2- 2
2-10	Sewers, Minneapolis, Minn.	2- 2
2-11	Sewers, St. Paul, Minn.	2- 2
2-14*	Sewers, Sigourney, Iowa	2- 2
2-14	Sewers, New York, N. Y.	2- 2
2-15	Sewers, Wilson, N. C.	2- 2
2-15	Sewers, Dell Rapids, S. Dak.	2- 2
2-16	Culverts, Mobile, Ala.	2- 2
2-20	Sewers, Huntington, W. Va.	2- 2
2-21	Sewers, Mt. Vernon, Iowa	2- 2
2-21	Sewer, Clarinda, Iowa	2- 2
2-23*	Sewers, Paris, Ill.	2- 2
2-24	Sewers, Hastings, N. Y.	2- 2
2-28	Sewers, Cleveland, Ohio	2- 2
2-31	Sewers, Solvay, N. Y.	2- 2
3-16	Sewer system, Rector, Ark.	2- 2

Streets and Roads.

Bids close.		Noted in issue of
2- 3	**Culverts, Cincinnati, Ohio**	**1-19**
2- 3	**Grading, etc., Indianapolis, Ind.**	**1-26**
2- 3	**Grading, etc., Cleveland, Ohio**	**1-26**
2- 3	Sidewalks, Salt Lake City, Utah	2- 2
2- 3	Repaving, Buffalo, N. Y.	2- 2
2- 4	Pavement, Sapulpa, Wash.	2- 2
2- 6	Road construction, Tipton, Ind.	2- 2
2- 6	Road impvt., Youngstown, Ohio	2- 2
2- 6	Road construction, Jackson, Miss.	2- 2
2- 6	Lumber, Vancouver, Wash.	2- 2
2- 6	Paving, Coalinga, Cal.	2- 2
2- 6	Road work, Kiron, Iowa	2- 2
2- 6	Road impvts., St. Paul, Minn.	2- 2
2- 6	Grading, etc., Fresno, Cal.	2- 2
2- 6	**Paving, Buffalo, N. Y.**	**1-26**
2- 6	**Paving, Montgomery, Ala.**	**1-26**
2- 6	**Road Construction, Fowler, Ind.**	**1-26**
2- 6	**Street, Greensburg, Ind.**	**1-26**
2- 6*	**Paving, Huntington, W. Va.**	**1-19**
2- 6	**Sidewalks, etc., Atlanta, Ga.**	**1-19**
2- 6	**Gravel road, Huntington, Ind.**	**1-12**
2- 7	**Sidewalks, Palatka, Fla**	**1-12**
2- 7	**Paving, Newburgh, N. Y.**	**1-12**
2- 7	**Macadam road, Marion, Ind.**	**1-19**
2- 7	**Gravel roads, Winamac, Ind.**	**1-19**
2- 7	**Road, Martinsville, Ind.**	**1-19**
2- 7	**Macadamizing, Bloomfield, Ind.**	**1-26**
2- 7	**Highway improvem't, Brazil, Ind.**	**1-26**
2- 7	**Sidewalks, Crowley, La.**	**1-26**
2- 7	Paving, Elizabeth City, N. C.	2- 2
2- 7	Road plank, Chehalis, Wash.	2- 2
2- 7	Grading, etc., Monterey, Cal.	2- 2
2- 7	Paving, Manhattan, Kan.	2- 2
2- 7	Paving, Tampa, Fla.	2- 2
2- 7	Pavements, Elizabeth City, Va.	2- 2
2- 7	Road construction, Rushville, Ind.	2- 2
2- 7	Road impvt., Waterville, Wash.	2- 2
2- 7	Sidewalks, Michigan City, Ind.	2- 2
2- 8	Road construction, Lafayette, Ind.	2- 2
2- 8	Road work, Newark, Ohio	2- 2
2- 8	Macadamizing, Riverside, Cal.	2- 2
2- 8	**Road improvement, Cleveland, O.**	**1-19**
2- 8	**Gravel road, Mt. Vernon, Ind.**	**1-19**
2- 8	Road construction, Cleveland, O.	1-19
2- 9	Repairing pavements, New York	2- 2
2- 9	Maintaining pavements, N. Y.	2- 2
2-10	Grading, Cleveland, Ohio	2- 2
2-10	Grading, etc., Wilkesbarre, Pa.	2- 2
2-11	Grading, Cleveland, Ohio	1-26
2-13	Paving, Erie, Pa.	2- 2
2-13	Paving, etc., Columbiana, Ohio	2- 2
2-14	Gravel road, Menominee, Mich.	2- 2
2-15	Road work, Williamsburg, Iowa	2- 2
2-15	Paving, etc., Elizabeth, N. J.	2- 2
2-15	Road construction, Cleveland, O.	1-19
2-15	Paving, etc., New York, N. Y.	2- 2
2-16	Paving, Mobile, Ala.	1-26
2-17	Paving, Westfield, Mass.	2- 2
2-18	Grading, etc., Franklin, Ind.	2- 2
2-20	Paving, Huntington, W. Va.	2- 2
2-20	**Paving, Defiance, Ohio**	**2- 2**
2-20	**Pavements, Ludington, Mich.**	**2- 2**
2-20	Roads, etc., Boston, Mass.	-26
2-20*	Road construction, Mineola, N. Y.	2- 2
2-23	**Paving, Portland, Ore.**	**1-19**
2-24	Road work, Cincinanti, Ohio	2- 2
2-27	Paving, Atlantic City, N. J.	2- 2
3- 1	Highway impvts., Portland, Ind.	2- 2
3- 1*	Macadam road, Madison Barracks, N. Y.	2- 2
3- 1*	Asphalt, Winnipeg, Man.	1-26
3-13	Grading, Worthington, Minn.	2- 2

Miscellaneous.

Bids close.		Noted in issue of
2- 3*	**Drainage work, Peoria, Ill.**	**1-19**
2- 3*	**Storage battery, Athenia, N. J.**	**1-19**
2- 3	Ditches, Warren, Minn.	2- 2
2- 4	Passenger steamer, Detroit, Mich.	2- 2
2- 4	**Ditches, Bemidji, Minn.**	**1-19**
2- 4	**Roof and runway, Norfolk, Va**	**1-12**
2- 4	**Travelling crane, Norfolk, Va.**	**1-12**
2- 4	**Culverts, Warren, Minn.**	**1-26**
2- 6	**Torpedo boats, Washington, D C**	**12-15**
2- 6	**Chert and gravel, etc., Atlanta, Ga.**	**1-19**
2- 6	**Fire station, Fort Screven, Ga.**	**1-19**
2- 6	Road roller, St. Paul, Minn.	1-26
2- 6	Steel culvert pipe, Minneapolis, Minn.	2- 2
2- 6	Elevator, Los Angeles, Cal.	2- 2
2- 7	Brass, steel, etc., Wash., D. C.	2- 2
2- 7	Shed work, New Orleans, La.	2- 2
2- 7*	Dams and canals, Porto Rico, (U. S. Poss.)	12-22
2- 7	Revolver ranges, etc., Blauvelt, N. Y.	1-26
2- 7	Docks, Michigan City, Ind.	1-26
2- 7	Culverts, Dickinson, N. Dak.	1-26
2- 8	Drains, Garner, Iowa	2- 2
2- 9	Telephone supplies, Regina, Sask.	2- 2
2- 9	Repairs to Shelter-house, N. Y.	2- 2
2-9	**Steel fences, Fort Meade, S. Dak.**	**1-19**
2-10	Cold storage plant, Crisfield, Md.	1-26
2-10	Sewer brick, etc., Minneapolis, Minn.	2- 2
2-10	Furnace, etc., Watertown, Wis.	2- 2
2-10	Fire-alarm boxes, Spokane, Wash.	2- 2
2-11	Caisson, Hawaii (U. S. Poss.)	2- 2
2-11	Ditches, Greenfield, Ind.	2- 2
2-11	Immigrant station, Galveston, Tex.	2- 2
2-11	**Oil tanks, Portsmouth, N. H.**	**1-12**
2-11*	**Dredging, Galveston, Tex**	**1-12**
2-13	Wharf, Michipicoten, Ont.	1-26
2-13	Gravel, Boston, Mass.	2- 2
2-13	Auto chassis, Redondo, Cal.	2- 2
2-14	Hook and ladder truck, etc., Los Angeles, Cal.	2- 2
2-14*	**Dredging and rock removal, New York**	**1-12**
2-15	Steel steamer, Ottawa, Ont.	12-29
2-15	**Boiler, Ottawa, Ont.**	**1-19**
2-15	**Fire engine and hose wagon, Washington, D. C.**	**1-19**
2-15	Boiler, Ottawa, Ont.	2- 2
2-15	Woven-wire fence, N. Chicago, Ill.	2- 2
2-15	Excavating channel Newark, O.	2- 2
2-15	Binder stone, etc., New York	2- 2
2-16	Railway, Spain (Foreign)	2- 2
2-16	Telephone system, Delaware, O.	2- 2
2-17	Reinforcement material, Panama, (U. S. Poss.)	2- 2
2-17	Crushed stone, Boston, Mass.	2- 2
2-18	Steel tug, Vancouver, B. C.	2- 2
2-18*	Storehouse, Fort H. G. Wright, N. Y.	1-26
2-20	Lock and dam, Cincinnati, Ohio	1-26
2-20	Wh'f extension, St. Fauville, Que.	2- 2
2-20	Fire wagon, Helena, Mont.	2- 2
2-21*	Structural steel fabrication, New Orleans, La.	1-26
2-22	**Steel tramway plates, Australia (Foreign)**	**12- 8**
2-23	Telephone material, Brazil (Foreign)	2- 2
2-24	Lock gate recess covers, Panama, (U. S. Poss.)	2- 2
2-25	**Machinery for gate valves, etc., Panama (U. S. Poss.)**	**1- 5**
2-28	**Elec. pumping machinery, Australia (Foreign)**	**12-29**
2-28*	Locktender's dwelling, Cincinnati, Ohio	2- 2
3- 1	Asphalt, Winnipeg, Man.	2- 2
3- 1*	Breakwater, etc., Milwaukee, Wis.	2- 2
3- 1	**Bath house, Hot Springs, Ark**	**1-12**
3- 1	**Ventilating apparatus, So. Africa (Foreign)**	**1-19**
3- 7	Ice piers, Cincinnati, Ohio	2- 2
3-14	**Wireless telegraphy installation, Australia (Foreign)**	**1-19**
3-16	Ditch, etc., Rector, Ark.	1-26
3-24*	**Rock railway material, Panama, (U. S. Poss.)**	**1-26**
3-30	Dams, etc., **Panama (U. S. Poss).**	**1-19**
4- 1	Bridge, Spain (Foreign)	2- 2
4-20	**Hospital, etc., (plans and designs) Argentine Republic (Foreign)**	**1-12**

Examinations.

Examination date.		Noted in issue of
2- 3	**Asst. engineer, New York, N. Y.**	**12-29**
2- 3	**Assistant engineer, New York, N. Y.**	**1- 5**
2- 7	**Assistant Classifier, Washington, D. C.**	**1- 5**
2- 8	**Assistant Physicist, Wash., D. C.**	**12-22**
2- 8	**Assistant Curator, Wash., D. C.**	**12-22**
2- 8	**Preparator, Division of Technology, Wash., D. C.**	**12-29**
2- 8	**Topographic Aaid, Washington, D. C.**	**12- 8**
2- 8	**Aid, Washington, D. C.**	**1-19**
2- 8	**Topographic Draftsman and copyist, topographic draftsman, Washington, D. C.**	**1-19**
2- 9	**Asst. Geologist, Wash., D. C.**	**12-8**
2- 9	**Junior Topographer, Wash., D. C.**	**12- 8**
2-11	**Assistant civil engineer, Albany, N. Y.**	**1-26**
2-11	**Accident Inspector, Albany, N. Y.**	**1-26**
2-11	**Leveler, Albany, N. Y.**	**1-26**
2-11	**Chief Inspector of Gas, Albany, N. Y.**	**1-26**
2-23	**Aid in Anthropology, Washington, D. C.**	**1-26**

WATERPROOF CEMENT STAINS.—Samuel Cabot, Inc., Boston, Mass. Paper; 3¼ × 6 ins.; pp. 11; illustrated.

This pamphlet says that "the base of the stains advertised in it is a waterproofing compound which enters and seals the pores of the concrete. This compound is composed of indestructible materials which cannot oxidize or otherwise decompose or disintegrate, and the waterproofing result is therefore absolutely permanent." In addition, it is made in various colors, which add to the appearance of the concrete.

CONCRETE.—Robert W. Hunt & Co., 90 West St., New York City. (1) Paper; 4¾ × 7¼ ins.; pp. 38. (2) Paper; 3¾ × 6¼ ins.; pp. 20.

The first of these pamphlets is a reprint of the report of the Joint Committee on Concrete and Reinforced Concrete which was presented to several engineering societies in 1909. Heretofore, this report has been available only through the publications of the societies, so that this reprint by the Hunt Company should be appreciated by engineers who are not members of the contributing society.

The second pamphlet contains the Standard Specifications for Portland Cement.

CABLES AND INSULATED WIRES.—Hazard Mfg. Co., Wilkes-Barre, Pa. Two Sections. Paper; 9¼ × 6¼ ins.; illustrated.

In presenting to its patrons a new and revised catalog of its products, this company has issued it in two sections: one on wire rope, and another on insulated wires and cables. The two pamphlets not only describe the products, but they show a wide variety of interesting pictures of installations where Hazard wires and cables have been used.

CONCRETE MIXER.—The Aerial Concrete Machinery Co., Wilkes-Barre, Pa. Paper; 4 × 8¼ ins.; pp. 6; illustrated.

This mixer is a batch mixer of the polygon type with interior baffle blades. Its special novelty is that it hangs by a supporting axle from a suspended cable, rather than resting on a platform or on the ground, as is common in concrete mixers of this type. It is claimed that it can be swung from a derrick and be carried direct from the material piles to the forms, thereby saving transportation.

CONCRETE MIXER.—Waterloo Cement Machinery Corporation, Waterloo, Iowa. Stiff paper; 9 × 6 ins.; pp. 61; illustrated.

The Polygon mixer is a polygonal drum formed by two truncated cones mounted on the heads of a cylindrical drum in such a way that the original axis of the drum is inclined at an angle of 45° to the main axis of the mixer. The mixing action is further increased by the presence of interior baffle blades. The catalog contains views of the mixer, both alone and with engine and loading equipment.

TELEPHONES.—Baird Electric Co., Chicago, Ill. Three pamphlets. Paper; illustrated.

The first pamphlet describes the measured telephone service equipment of this company. These are coin-in-the-slot machines.

The second pamphlet describes a printing time stamp for recording the date and hour of various transactions. A variety of type dials is shown.

The third pamphlet describes a telephone train dispatching system. This involves the use of a selective ringing signaling system operated over the same line as the telephone service.

FINISHING MACHINE FOR CONCRETE CURB AND GUTTER.—Thomas L. Barret, General Sales Agent, Louisville, Ky. Folder; 11 × 8½ ins.; illustrated.

The machine illustrated is for placing and smoothing the finishing coat of combined concrete curbs and gutters. The illustrations and the few words of description are so promising as to stimulate a desire for more detailed information regarding the machine and how it operates. It appears that the finishing coat is loaded into a hopper mounted on three wheels. Two of these wheels are on the curb side of the hopper and appear to be flanged and to run on a track fixed close to the sidewalk side of the curb. The third wheel appears to have a smooth surface. The machine is drawn forward by two men at a slow walk. As they proceed, the finishing coat is deposited and smoothed without handwork or further effort of any kind. The circular states that the finishing and edging is done by a phosphor-bronze plate and that the finishing coat is "applied under pressure, insuring density." Letters from two different contracting companies certify to the efficiency of the device. One of these concerns states that a crew which put in only some 400 lin. ft. per day under the old method laid from 900 to 1,000 ft. of 6 × 30-in. concrete curb and gutter.

ELECTRIC RAILWAY APPARATUS.—General Electric Co., Schenectady, N. Y. Bulletins 4755, 4798 and 4808. Paper; 8 × 10½ ins.; illustrated.

The first of these bulletins is an elaborate pamphlet describing the work done for the Great Northern R. R., which has recently installed three-phase electric traction for its Cascade Tunnel. The second bulletin describes a system of straight air brake equipment for electric cars. The third contains a detail description of the high-speed interurban railway connecting Washington, D. C. and Baltimore. It will be remembered that this line was changed from single-phase alternating current to 1,200 volts, direct current, and without interrupting traffic.

ALKALI-PROOF CEMENT.—Colorado Portland Cement Co., Ideal Cement Bldg., Denver, Colo. Paper; 4 × 6¾ ins.; pp. 36; illustrated.

A few years ago the engineers in the Far West were somewhat concerned with the report that concrete was showing a decided deterioration under the action of alkali waters in that region. This report was confirmed, at least in many places, by the evidence of concrete sewers and drain pipes which had gone to pieces. One of the remedies proposed for these failures was the use of a cement with a higher percentage of silica than is common in ordinary Portland cement, so that there is no free lime to be attacked by the alkali, or, in case of marine construction, by the sea water. The pamphlet noted above describes a cement which has been devised to meet just this provision. It is recommended for all work which is liable to be subjected to either alkali or sea water.

For other Proposal Advertisements see pages 51, 52, 53, 54, 56 of Advertisements and Construction News page 64.

COUNTY ROADS.

Mineola, N. Y.

Sealed bids for the construction and improvement of those two county roads, in the Town of Hempstead, Nassau County and State of New York, known and described as (1) the Hempstead and Babylon Turnpike running in a northwesterly direction from the Merrick Road near Merrick, to the Nassau Turnpike at Roosevelt, and (2) Centennial Avenue, running in a westerly direction from the Nassau Turnpike at Roosevelt, to the Grand Avenue Road, in which is included a jog at Woodside Avenue, of a distance respectively of thirteen thousand seven hundred and fifty (13,750) feet, and sixty-nine hundred (6,900) feet, in accordance with the plans and specifications of William H. Seaman, C. E., County Superintendent of Highways, on file with the Clerk of the Board of Supervisors of said County, will be received by the said Board of Supervisors of said County at its Chambers in the County Court House, in Mineola, on the 20th day of February, 1911, at 10:30 o'clock of that day, at which time and place the bids will be publicly opened and acted upon, and contract awarded to the lowest responsible bidder with adequate security. The person or persons to whom contract may be awarded will be required to attend at such time and place as the Clerk of the Board may notify him or them of, with sureties offered by him or them and execute the contract.

The Board of Supervisors reserves the right to reject any or all of the bids if deemed for the best interest of Nassau County.

All bids shall be presented in sealed envelopes at or before the day and hour above mentioned.

No bid will be accepted from, or contract awarded to, any person, firm, or corporation, who is in arrears to any municipal corporation upon debt or contract, or who is a defaulter, as surety or otherwise upon any obligation to any municipal corporation, or who is not a resident and citizen of the State of New York.

All bids must be accompanied by a certified check in the sum of Five Hundred Dollars, drawn to the order of Daniel J. Hegeman, Treasurer of Nassau County.

These deposits, excepting that of the successful bidder, will be returned upon awarding the contract.

Annexed hereto is a statement based upon the estimates of the Engineer of the quantity and quality and the nature and extent, as nearly as possible, of the work required.

ESTIMATE.

N. B. As the above mentioned quantities, though stated with as much accuracy as is possible in advance, are approximate only, bidders are requested to submit their bids upon the following express conditions, which shall apply and become part of every bid received.

First: Bidders must satisfy themselves by personal examination of the location of the proposed work and by such other means as they may prefer as to the accuracy of the foregoing estimate and shall not at any time after submission of a bid dispute or complain of such statement or estimate of the engineer, nor assert that there was any misunderstanding in regard to the nature or the amount of the work to be done.

Second: Bidders will be required to perform and complete the entire work to the satisfaction of the Board of Supervisors and County Superintendent of Highways of Nassau County and in accordance with the specifications. No extra compensation shall be due or payable for the entire work.

No bids will be received or considered unless accompanied by either a certified check which shall be satisfactory to the Board of Supervisors, drawn to the order of the County Treasurer of Nassau County, or money to the amount of Five Hundred Dollars. Such check or money must not be enclosed in the sealed envelope containing the bid, but must be handed to the Chairman of the Board, and no bid will be received unless such check has been examined by said officer and found to be correct. All such deposits, except that of the successful bidder, will be returned to the person making the same immediately after the contract is awarded. If the successful bidder shall refuse or neglect to execute the contract, the amount of the deposit made by him shall be forfeited to and retained by the County Treasurer for the benefit of the County as liquidated damages for such neglect or refusal; but if he shall execute the contract within the time aforesaid the amount of his deposit will be returned to him.

Bidders will state in writing and also in figures:

The price per cubic yard for grading, which shall include excavating and construction of the trench for the reception of the stone.

The price per square yard for finished macadam pavement furnished in the ordinary way, i. e., sand, screenings, water and loam.

The price per square yard for finished macadam pavement using Standard Macadam Asphalt Binder, manufactured by the Standard Oil Co.

The price per linear foot for furnishing and laying to grade the Sperry Perfection Expansion Culvert, manufactured by the Munnsville Plow Company, Munnsville, N. Y.

Bidders are informed that no deviation from the specifications will be allowed in the performance of the work or quality and quantity of material furnished unless a written permission shall have been previously obtained from the Board of Supervisors or County Superintendent of Highways.

Work or material not specified and for which a price is not named in the contract will not be allowed for.

The amount of the security required is Five Thousand Dollars for the faithful performance of the contract.

Further information, if required, will be given and the specifications and form of agreement can be obtained upon the payment of $5.00 to cover the cost of the same, upon application to William H. Seaman, County Superintendent of Highways, at Glen Cove, L. I.

WILLIAM E. LUYSTER,
Clerk;

By order of the Board of Supervisors.
Dated, Mineola, N. Y., Jan. 30th, 1911.

READVERTISEMENT.

CENTRIFUGAL PUMPS, 22ND STREET PUMPING STATION.

DEPARTMENT OF PUBLIC WORKS.

Chicago, Jan. 30, 1911.

Sealed proposals will be received by the City of Chicago until 11 a. m., Saturday, Feb. 11, 1911, at Commissioner of Public Works Office, City Hall Building, for furnishing and installing in place two 20,000,000-gallon centrifugal pumps and two 1,000-HP. synchronous electric motors, together with piping, wiring, switchboard and other appurtenances, at the 22nd St. pumping station, according to plans and specifications on file in the office of the Department of Public Works of said city, room 705, City Hall, 200 East Randolph St.

Proposals must be made out upon blanks furnished at said office, and be addressed to said department, indorsed "Proposals for Pumps and Motors, 22nd St. Pumping Station," and be accompanied with One Thousand ($1,000) Dollars in money or a certified check for the same amount on some responsible bank located and doing business in the City of Chicago and made payable to the order of the Commissioner of Public Works.

The Commissioner of Public Works reserves the right to reject any or all bids.

No proposal will be considered unless the party offering it shall furnish evidence satisfactory to the Commissioner of Public Works of his ability and that he has the necessary facilities, together with sufficient pecuniary resources to fulfill the conditions of the contract and specifications, provided such contract should be awarded to him.

Companies or firm bidding will give the individual names, as well as the name of the firm, with their address.

B. J. MULLANEY,
Commissioner of Public Works.

BRIDGE.

OFFICE OF COUNTY
SUPERINTENDENT OF HIGHWAYS.

Kingston, N. Y.

Sealed proposals will be received at this office until 11 o'clock Thursday, March 2nd, 1911, for the building of a steel bridge across the Rondout Creek at Eddyville, in the County of Ulster, New York, and for the removal of the present metal structure and the enlargement of the present piers and abutments, in accordance with the plans and specifications, which may be seen at this office.

Contractors desiring to bid upon this work can obtain from the County Superintendent of Highways of Ulster County, a complete set of plans and specifications upon written application therefor.

Each bidder must accompany his bid with a certified check for fifteen hundred dollars ($1,500.00) on any responsible bank and made payable to the Treasurer of Ulster County, New York, guaranteeing that should he be awarded the contract he will enter into this contract within ten (10) days after the same is awarded, and that he will furnish the Towns of Esopus and Ulster a satisfactory surety company bond in the sum of fifteen hundred dollars ($1,500.00).

Bidders are required to state in their bids their name and place of address.

The town superintendents of the Towns of Esopus and Ulster reserve the right to reject any or all bids.

JAMES F. LOUGHRAN,
County Superintendent.

Situations Wanted

Superintendent of Construction

WANTED: A superintendent experienced in electric railroad work and competent to handle a large force of men. State age, experience and salary, with references. Address "X. B. 5," Engineering News, New York. 5-1t

Situations Open

WANTED—Draftsman, experienced in cement mill and industrial plant designing. In reply, state age, experience, reference and salary expected. Engineering graduate from technical school or college preferred. Address "W. B. 5," Engineering News, New York. 5-1t

Miscellaneous Wants

WANTED
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JANUARY 5, 1911
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